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THE MUSEUM JOURNAL

VOLUME VII

THE UNIVERSITY MUSEUM
PHILADELPHIA

1916

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THE
MUSEUM JOURNAL

VOL. VII PHILADELPHIA, MARCH, 1916 No. 1

AN EXHIBITION OF ORIENTAL ART

THE three months beginning November 1, 1915, were occupied by the installation of the Exhibition of Oriental Art that had been planned in connection with the opening of the new exhibition hall on the main floor of the Museum. The installation was completed early in February and The Charles Custis Harrison Hall with the exhibition of Oriental Art was opened with a reception given by the President and Board of Managers on the evening of February the 12th. On the 13th the exhibition was opened to the public and since that time has continued to attract a large number of visitors.

During a period of about two years the Museum has been gradually acquiring examples of the antique art objects of China and other Eastern countries. In addition to these acquisitions there are shown in the present exhibition a number of examples of the very highest merit which the owners have generously lent for the purpose. The principal part of the exhibition is Chinese; the other countries included, Persia and Tibet, are each represented by collections which, while numerically much smaller than the Chinese, are of the very highest importance and would in themselves comprise an exhibition of very unusual interest, showing examples of the best in each period of Persian Art and in the art of Tibet.

CHINESE SCULPTURE

In assembling the collections to form the exhibition, first attention was naturally given to the Fine Arts as represented by sculpture and painting. The collections representing the minor arts, such as the decorated bronze vessels, the porcelains, the potteries and

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carved jade, are of necessity more prominent numerically, but the keynote of the exhibition is struck by the Chinese sculpture. Though small in number compared to other groups of objects in the exhibition, these powerful creations of early Chinese artists exercise a dominating influence and sustain the supreme position of sculpture the world over as a means of giving form to the highest ideals.

The sculptures in the exhibition begin with the Han Dynasty (206 B. C.–25 A. D.), extend through the Wei Dynasty (386–549 A. D.), the T'ang Dynasty (618–907 A. D.), and come down to the Ming Dynasty (1368–1643 A. D.). This extension covers the rise, culmination and decline of sculpture in China, which had its golden age in the period of the T'angs. The range of this sculpture extends all the way from the genre type of clay statuettes, reminding one of the Tanagra figurines, and taken from the tombs of the T'ang period, to heroic figures in stone representing Buddhist divinities. In using clay as a vehicle and shaping this soft material into forms of lifelike eloquence, combining an easy grace of line with great power of expression, the knowledge and ability shown are at times startling. Technical skill, combined with imaginative genius, is seen in many fine examples made by masters of the T'ang period. It is seen in the figure of a horse and in the larger than life seated statue of a disciple of Buddha, both in the same medium, clay. The last named superb piece of plastic art shows in a remarkable way how the lump of clay under the master's touch becomes instinct with life and quick with spiritual and intellectual fire.

Other sculptors of the same era, using hard stone as their medium, have handed down to posterity works that claim our greatest admiration and respect. Among the considerable number of stone sculptures in the Museum collection, which date from the T'ang Dynasty, all of them on a very high plane of artistic and historic interest, there are at least six statues that are very great masterpieces. Four of these are larger than life and two are under life size. All represent Buddhist conceptions of Divinity. They impress one at once with their latent qualities of immobile power and of energy in repose, qualities that seem to belong especially in the province of sculpture. These true impressions lose nothing on more intimate acquaintance. On the contrary they become associated with other qualities which combine to produce an effect of great dignity and power on the one hand and great refinement and charm on the other.

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FIG. 1.—View of The Charles Custis Harrison Hall. Looking out.

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The Chinese sculptor never lost sight of the advantages to him of the properties of solidity and mass that are inherent in stone. His art availed itself of these characteristic properties at the same time that it drew upon its own infinite resources of sweetness and strength. His favorite subject was the human figure; but ignoring the obvious and irrelevant, he saw only the essential and the noble. He was not trying to shape man, but God, and his sturdy figures in their majestic grace are in reality more divine than human.

An examination of the entire body of early Chinese sculpture in the University Museum brings into prominence one characteristic, already implied, of the Chinese sculptor and his work that is not unknown to students of the works of other ancient peoples among whom the plastic art stood at a high level. Whether he moulds his figure in clay or works it out of stone, whether his subject be man or God or beast, the essential condition of his art is a static posture. If the idea of action is to be conveyed, it is implied but never directly rendered. This refers only to sculpture in the round and not to relief, which is a different thing.

The two clay horses in the Museum collection, one glazed and the other unglazed, illustrate this recognition on the part of the sculptor of certain conventions, limitations of method or canons of taste and form that to him governed the practice of his art. The horse stands with his four feet planted squarely and firmly under him. He stands stock still, a position in which no action whatever is represented, yet action is implicit in every line of his massive body and of his unbent legs. Saddled and bridled, his part is that of discipline and self-control. It is also that of a very real and very sanguine horse, that "paweth the valley and rejoiceth in his strength, that saith among the trumpets, Ha! Ha! and smelleth the battle afar off."

Chinese Painting

It is far otherwise with the art of painting, which in the T'ang Dynasty had already advanced into its own fields and mastered them completely. In these free fields the Chinese painter is the happiest of his kind. His subjects are varied. He may paint emperors in their robes of state, or priests, or beggars, or portraits of grave seniors or children at play, or demons or domestic scenes or scenes at court and these are rendered with great subtlety of

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FIG. 2.—View showing part of the Morgan Collection of Chinese porcelains.

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line and refinement of feeling and yet with directness and simplicity and with a self-confidence that is often astonishing.

It is as a landscape painter, however, that this Chinese artist excels. In the Museum collection are forty-seven paintings and twenty-five of these are landscapes. These paintings range in date from the T'ang to the Ming and include many landscapes of the classic Sung. They all convey a lively idea of the landscape painter's work. He gets very close to Nature and maintains towards her varying moods the intimate and sympathetic relationship of a familiar spirit. The Chinese painter worked upon silk and his medium was black ink or inks of various colors. With such materials as these and with the intricate resources of light and shade, every variety of motion came as natural modes of expression and could be rendered with the utmost felicity. Still this artist is never carried away by his license. He avoids a riot of action as he avoids a riot of color. His paintings are always restrained and temperate. It is thus that he shows us the storm, the mist on the hills, the wind in the trees, the flight of birds across the fields, the hunter returning from the chase riding his horse, the peasant at his plow, the conflicting passions of men and the rapacity of beasts. In dealing with these things that make up the objective world, and in showing forth the relation between fidelity of line and the poetry of motion and especially in translating the epic moods of Nature, Chinese painting has never been surpassed.

It has already been shown that Chinese sculpture, dealing with subjective things, under the influence of Buddhist teaching, displays a peculiar power in its revelation of the ideal of an orderly Universe and Mind in repose. It is true throughout the whole body of Chinese Art that the painter and the sculptor has each his own province and neither encroaches on the other. The painter represents the horse carrying his master and there is grace and swiftness in the action of his bent limbs, but it is the sculptor that has "given the horse strength and clothed his neck with thunder."

Bronze Vessels, Pottery, Porcelains and Jades.

In this exhibition may be seen an admirable series also of early Chinese bronzes (sacrificial vessels) made principally during the Chou Dynasty (1122–255 B. C.), and during the Han Dynasty (206 B. C.–25 A. D.). It also contains examples made during

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FIG. 3.—General view of the exhibition of Oriental art.

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the Sung, Yuan and Ming Dynasties. These objects of ceremonial or domestic use show the work of the craftsman as well as the work of the artist. Their form and decoration are part of an elaborate and formalized symbolism which preserves during the later periods, traditions of the ancient times. These bronzes represent an early phase of art and belong to the general background of artistic development that was not informed by the Buddhist tradition, which, when it came to China from India during the early centuries of our era, found the artistic sense of the Chinese bound up in conventionalized forms. To this period belong the bronze vessels; they show the rude strength of a more barbaric art, but not the scope or the imagination of the period that followed.

Pottery is included in the exhibition to show the ceramic products of the earlier periods. The potter was at work in the very earliest times, even before the bronze worker; his wares were first crude and plain, but there came a time when the potter began to reproduce the forms and decorations of his fellow craftsman and we find the pottery of the Han Dynasty imitating the shapes of the bronze vessels of a still earlier period. About the same time a glaze was discovered and the ceramic products underwent progressive refinement until pottery merged with the porcelain of the seventeenth and eighteenth centuries.

Although in the course of this development, the one merges into the other, anyone who observes the potteries on the one hand and the porcelains on the other, will be struck with the wide distance that is between them. Beautiful and exquisite as they are in form and color, the porcelains are wanting in some of the qualities that appeal so powerfully in the pottery. The porcelain vases, made purely for ornament, have a tendency toward formality. Admirable though they are, they are apt to leave one cold, because they lack the intimate human touch that is present in the pottery. The vessels of this latter kind were made for use and their form is determined by the service to which they were put. They show how the potter was able to shape vessels of domestic use so as to satisfy his sense of beauty. The artist craftsman of the porcelains strove only to gratify sense of form and color through his appeal to the eye.

Besides the bronzes, the pottery and the porcelain, other minor arts are well represented in this exhibition of Oriental Art. Cloisonné enamel, a product of the Ming Dynasty, occupies one case, and carved jade occupies another. In each case the examples shown

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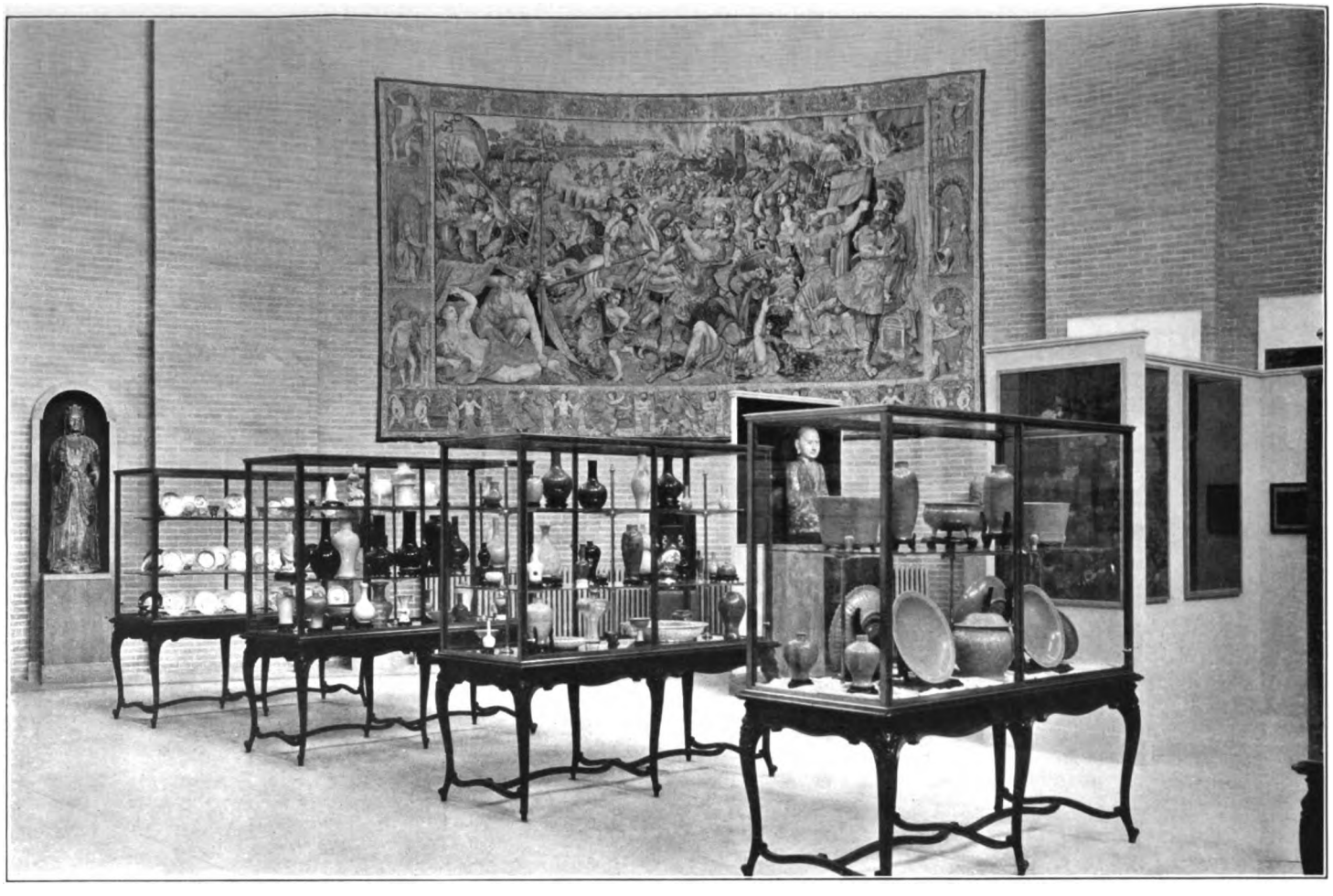

FIG. 4.—Exhibition of Oriental art. General view.

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exhibit the best qualities of these two products of the Chinese arts and crafts in the fifteenth and seventeenth centuries.

Persian Art

The three cases of Persian pottery make one of the most interesting features of the exhibition. The Asia Minor pottery and Rhodian ware that represent a later stage in the history of Persian ceramics have their own interest, historical and artistic. The earlier Persian potteries in the collection were made at Rhages in the eighth century and show that they owe their form and color to the Chinese potteries of that early period. By the twelfth and thirteenth centuries Persian pottery had entered paths of its own and the Rhages ware of that period is exquisite in form, color and decorative motives. From this time on to the sixteenth century the Persian wares multiply in variety, culminating in the very beautiful lustered plates and bowls made in the sixteenth century and now extremely rare.

Persian painting is represented by a case of miniatures and several illuminated manuscripts of the fourteenth, fifteenth and sixteenth centuries.

Persian textiles are represented by a number of very exquisite pieces which show a wide variety of design and which were made on the looms of Persia and Asia Minor during the sixteenth and seventeenth centuries.

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FIG. 5.—Imperial garden vase. Sung Dynasty (960–1280).

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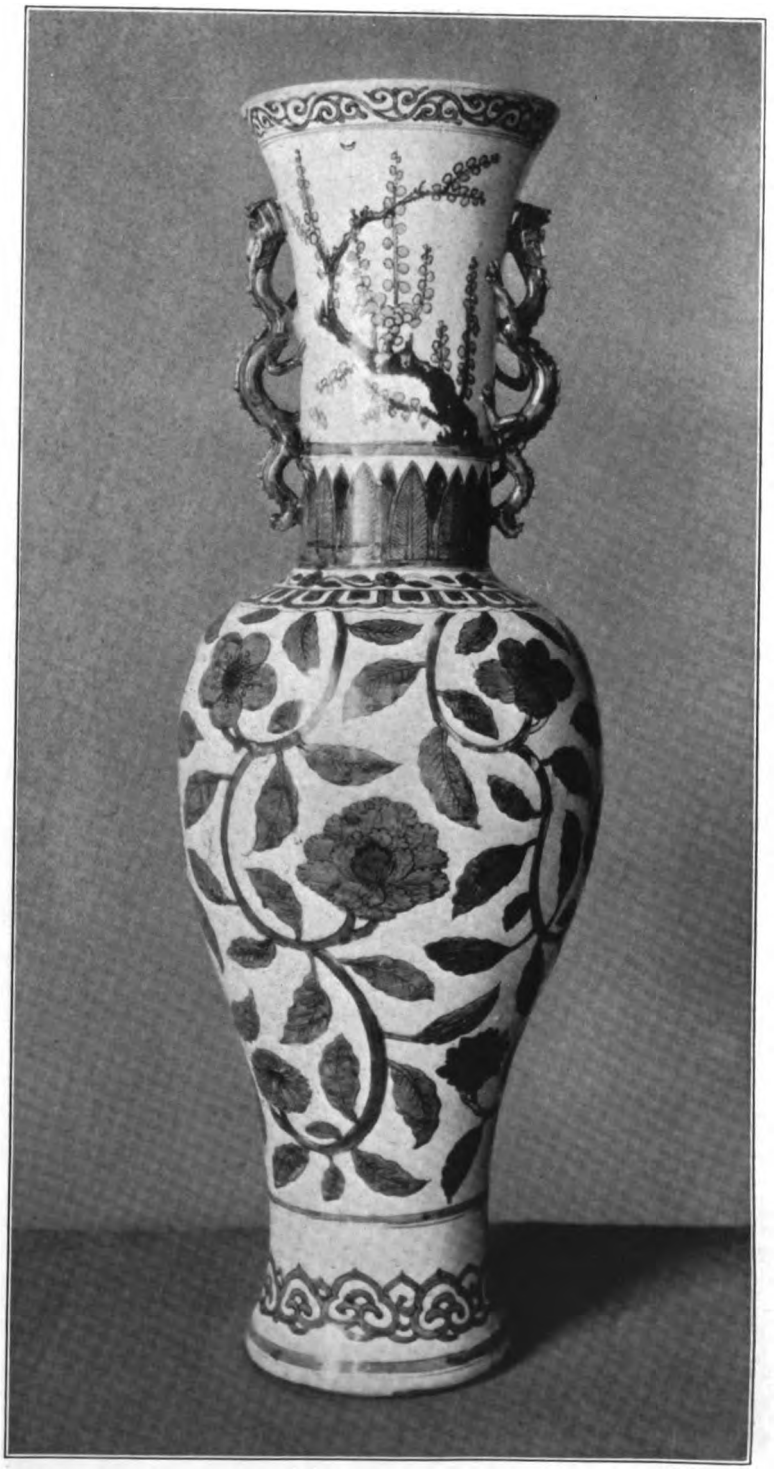

FIG. 6.—Large blue and red vase. Era of Wan-li (1573–1619).

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FIG. 7.—Large blue and white vase. K'ang-hsi period (1662–1722).

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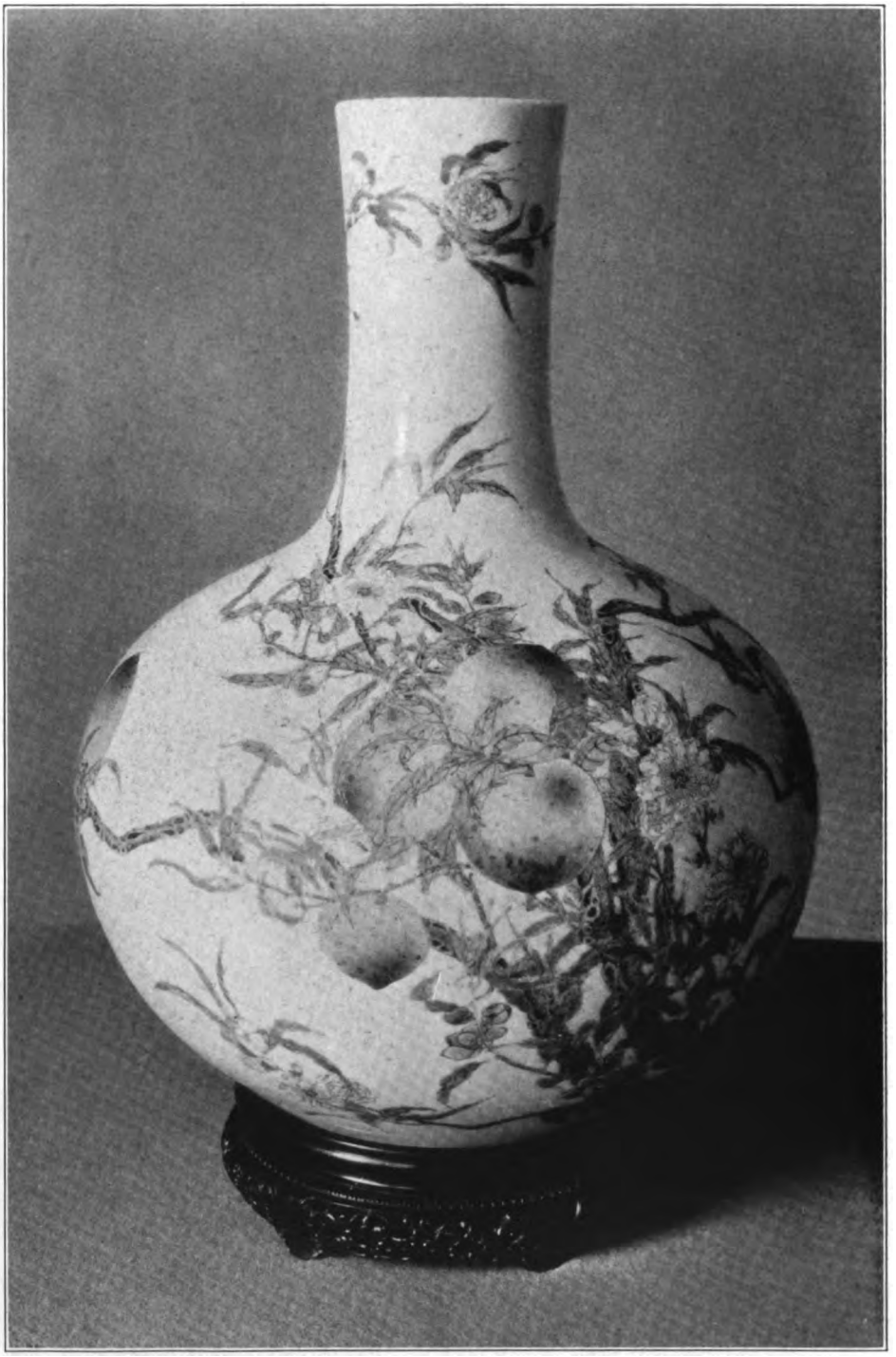

FIG. 8.—Large bottle with peach tree decorations. Ch'ien-lung period (1736–1795).

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FIG. 9.—Black hawthorn vase. K'ang-hsi period (1662–1722).

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FIG. 10.—Large vase with lotus flower decoration. Wan'li period (1573–1619).

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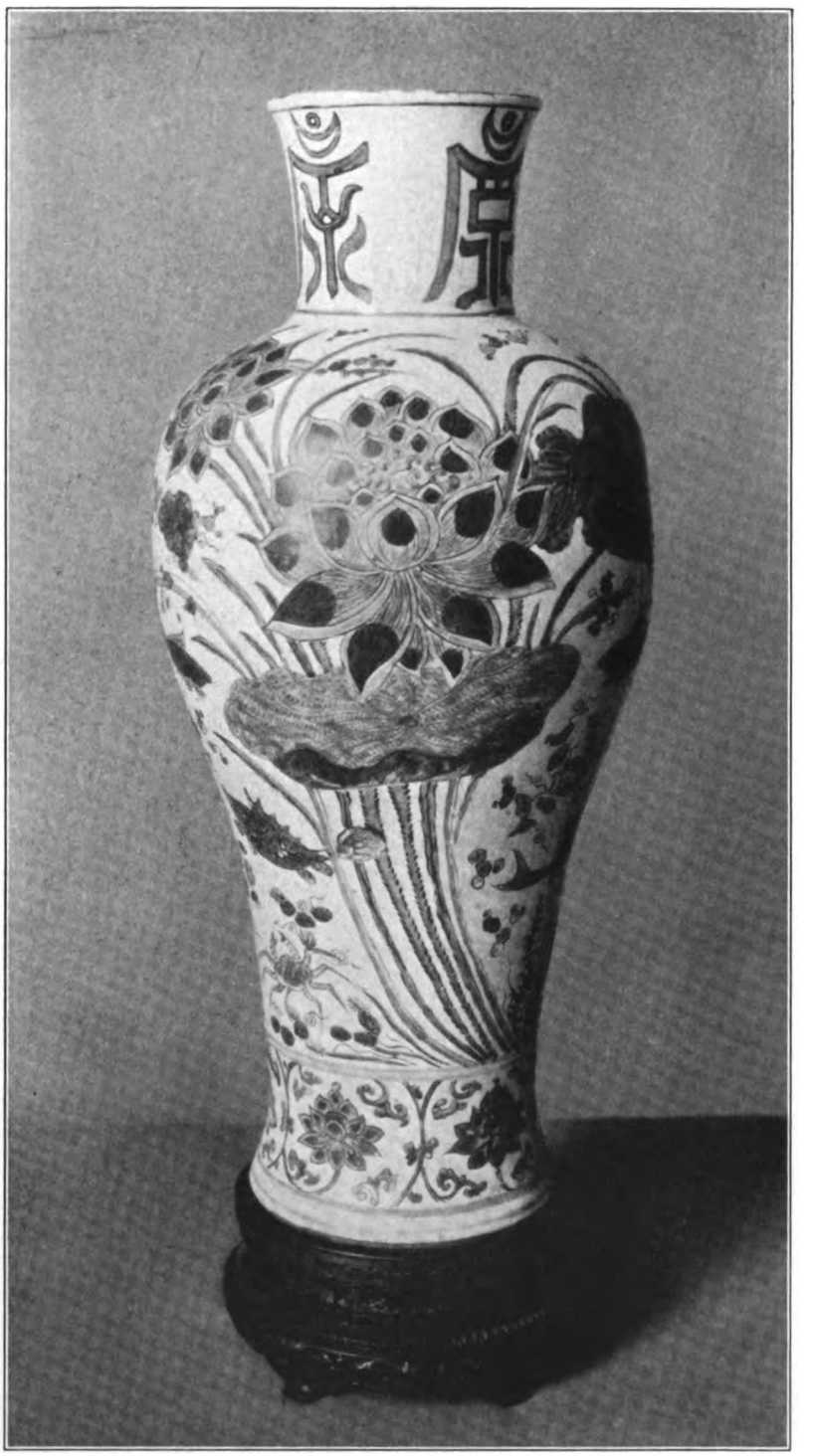

FIG. 10.—Large vase with lotus flower decoration. Wan'li period (1573–1619).

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FIG. 11.—Plates of eggshell porcelain with characteristic decoration. Ch'ien-lung period (1736–1795).

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FIVE ROMAN MOSAICS

IN 1904 Mrs. Dillwyn Parrish of London presented to the Museum in memory of her husband, the late Mr. Dillwyn Parrish, five examples of ancient mosaic pavement of Roman times. Of these the two most important specimens from the point of view of size come from Carthage, while the other three, smaller, to be sure, but nevertheless charming examples, are said to come from Rome.

Let us look at the Carthaginian mosaics first. They are to be found on the way to the new Rotunda, on the walls of the vestibule to the right and left as you enter. These mosaics belong, as has been said, to the Roman city of Carthage.

One ordinarily considers that the history of Carthage stopped with the Punic Wars and the sack and destruction of the city in 146 B. C., and we forget that the city was rebuilt as a Roman colony. 146 B. C. is an important date in Roman history. In that year Corinth fell in the East, and the Greek world fell under Roman sway, and Carthage in the West was captured, thus marking the subjugation of Rome's greatest and bitterest enemy. Both Corinth and Carthage were then laid under a curse, and became unoccupied, uninhabited, and barren. Carthage was even more completely destroyed than was Corinth; for underneath the Roman city the French excavators have found a thick layer of ashes, practically all that there is left of the city of Hannibal.

On the other hand, Carthage was reoccupied, or rather, attempts were made to rebuild it, soon after its fall. As early as 122 B. C., the Senate decided to plant a Roman colony there; but this first colony did not prosper, and fifty years later, when Marius, fleeing from the persecution of Sulla, came there, he found the city practically uninhabited. It remained for Julius Caesar to found the first successful colony, which he did in 46 B. C., just a century after its fall. In that year, too, he started a Roman colony in Corinth; so that the two cities, destroyed in the same year, were rebuilt and repopulated in the same year.

From this time on Carthage prospered. Furthered by the patronage of Augustus, it became in 14 B. C. the seat of the proconsul of Africa, taking the place of Utica, which up to that time had enjoyed that distinction. From that time on, like Corinth in

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the East, which had become the capital of the province of Achaea, Carthage became a center of luxury and wealth, and increased greatly in population. But it is, through the greater part of the Empire, one of those happy places which have no history; although it took part in two uprisings, in 68 A. D. and in 265 A. D. The most important event in its history politically or economically seems to have been a great fire, in the reign of Antoninus Pius, which destroyed the district around the Forum, or the business section of the city.

But the principal importance of Carthage in Imperial times lies in its connection with Christianity. It accepted the new faith with enthusiasm and great eagerness at an early stage in the history of the Church. At the end of the second century of our era it was made a bishopric and was the see of many famous bishops, the greatest of whom is Tertullian, who held the episcopal seat from 202 till his death in 218, and who, besides being an ecclesiastic, was also an author of merit and in fact the creator of Christian Latin literature. His successor, St. Cyprian (248–257), is also a famous character in the history of the early Church and the first African bishop to be made a martyr. Between 251 and 424 eleven synods of the Church were held at Carthage, the most important one being in 411, when the "Donatist" heresy was suppressed through the influence of St. Augustine.

Finally in 429 the peace of the city was disturbed by the invasion of the Vandals, headed by their famous king, Genseric. Ten years later he laid siege to Carthage, which, being peaceful and defenseless, fell without a blow, and was sacked by the barbarians.

At the time of its capture, Carthage was a large, prosperous city of 500,000 inhabitants; but after this, under the Vandals, it became nothing more than a station for piratical craft. In 533 the Vandals lost it to the Byzantines under Belisarius; in 697 they in turn surrendered it to the Saracens, who destroyed the city in the following year. From then on it appears only once in the History of the Middle Ages, when St. Louis, King of France, died there in 1270 when on a Crusade.

It is no wonder that a city so wealthy as Carthage must have been in Roman Imperial times should have left us such finds as these mosaics. Nor are these the only ones from there; the British Museum's choicest mosaics are from Carthage, and so are many of the Louvre's best specimens.

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Before we take up the difficult matter of dating these examples, let us take up the matter of the technique. There are four kinds of ancient mosaics, all of which flourish side by side, though some are earlier in origin than others.

1. OPUS TESSELLATUM.—Cubes of marble or stone regularly disposed in simple patterns. Largely used for pavements.
2. OPUS VERMICULATUM.—Cubes (not always regularly shaped) generally of colored marble or more precious materials when available, disposed so as to obtain a pictorial effect. With this technique the whole *art* of mosaic is concerned.
3. OPUS MUSIVUM.—Applied to the decoration of walls or vaulted ceilings; cubes of glass or enamel were used, the glass being made opaque and colored, then cast into flat slabs and broken into small cubes.
4. OPUS SECTILE.—A species of marqueterie in marble or other colored materials, used to produce pictures and patterns. From this technique there developed in the late Empire

4a. OPUS ALEXANDRINUM.—A late form of Opus Sectile, limiting its materials principally to red and green porphyry. The theory advanced by the ancient biographer of the emperor Alexander Severus (Hist. Aug., chapter 25, section 7) that this emperor invented the technique and that therefore it was named for him is surely incorrect, and a false etymology; for it was undoubtedly invented and developed at Alexandria, and perhaps took its first start in Rome during the reign of this emperor.

The two mosaics from Carthage that we are discussing are both of the second technique mentioned, the Opus Vermiculatum, and are very good examples of this kind of work. This form of mosaic seems to have been invented by the ancient Egyptians, and its beginnings go back to a very remote antiquity. First used for jewelry and minor objects, like the mosaic ornaments sold in Rome and Venice today, it began to be used for more ambitious purposes in the Ptolemaic period, when the progress in the manufacture of glass and the opening of quarries of colored marbles made these materials cheaper and more common; and it is from this period that we first begin to hear of mosaic pavements. From Egypt the art was introduced throughout the Eastern Mediterranean, and found especial favor in the Greek world. To this period, or a little later,

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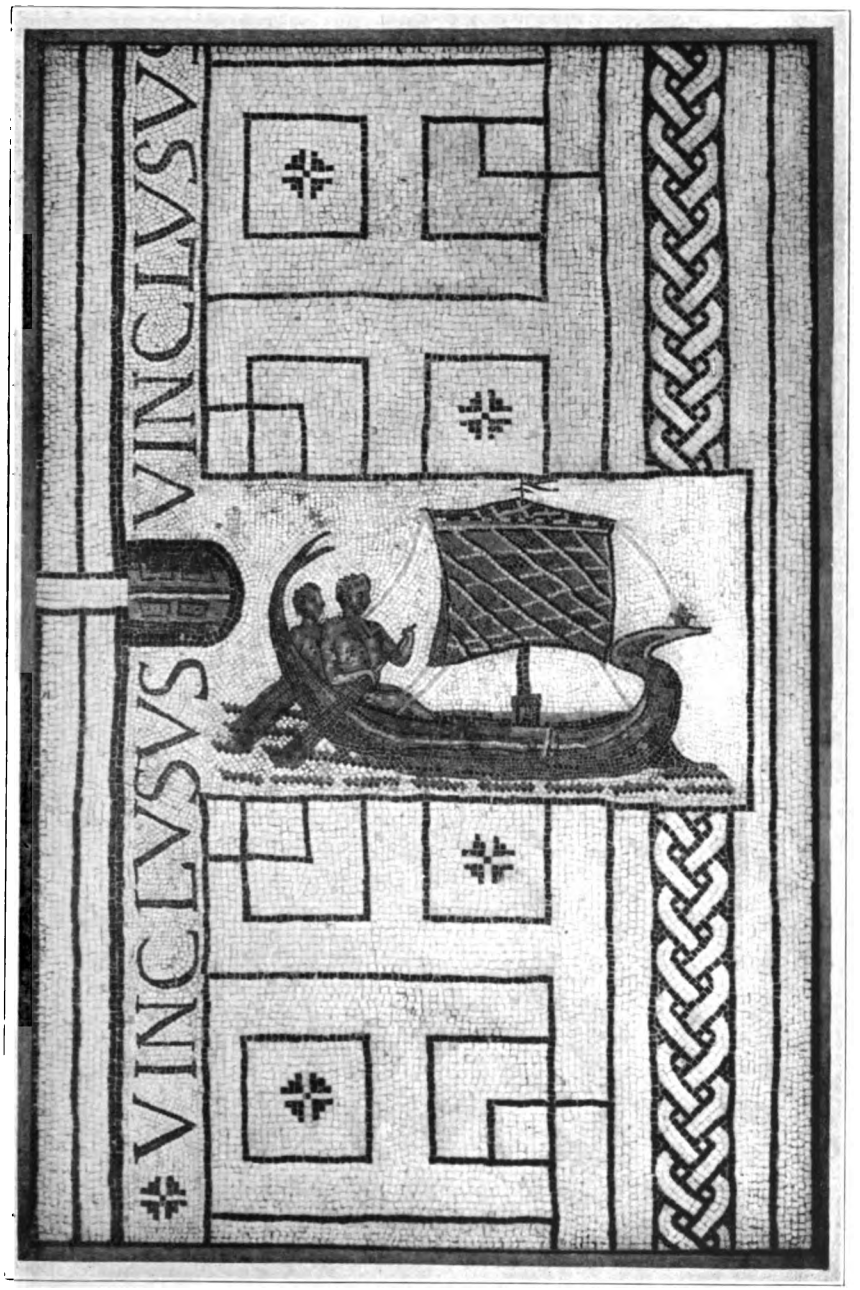

FIG. 12.—Mosaic from Carthage. Dillwyn Parrish Collection.

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about the end of the second century B. C., belong the famous and beautiful mosaic pavements still *in situ* at Delos, in various private houses discovered by the French archaeologists, especially the House of the Trident.

These mosaics from Carthage, however, cannot, of course, be dated earlier than the end of the first century B. C., from the point of view of history, and a study of their style leads the student to put them at a much later date. From this point of view they cannot be earlier than the first century of our era, but this was a period of the greatest excellence in artistic as well as technical skill. The first one which will be examined is the one illustrated by Fig. 12, as it seems to be of somewhat earlier date than the other one from Carthage. The illustration will give the reader some idea of the artistic feeling and immense technical skill of the maker. Especially noticeable is the wonderful treatment of the flesh of the two men in the boat. The play of light and shade on the skin is so excellently handled that their bodies seem to gleam as if they were anointed with oil. It is a feat to show this not by means of paint or by a wide choice of color, but merely by means of small cubes of marble of a comparatively restricted number of shades. Another point in assigning this to a very good period is the feeling of reserve space given to the student. There is no overcrowding of the space, but the design is simple and restrained. This, and the general excellence of execution, combine to make us put this mosaic at a very good period, probably in the middle of the first century of our era, when the artists of the mosaic art combined artistic imagination with great technical skill. Later we shall see that technical skill drove out imagination and that the later mosaics are very uninteresting in subject as compared with the older ones, but are of supreme importance for their exhibition of the different tricks of technique known to the makers. This mosaic bears, twice repeated, the curious inscription V I N C L V S V S. The meaning of this inscription is not at all clear. The illustration shows that it is thought of as a complete word, and that nothing is lost from it. There is no such word in ordinary use in the Latin language, and it becomes a problem as to what its meaning may be. A solution of this would be extremely welcome, as it might throw some light upon the life of the inhabitants of Roman Carthage.*

*It has been suggested to the writer by Prof. W. B. McDaniel that this may be VINC(IMUS) LVSVS, "we win our games," or VINC(TOR) (for Victor) LVSVS, "the winner of a game."

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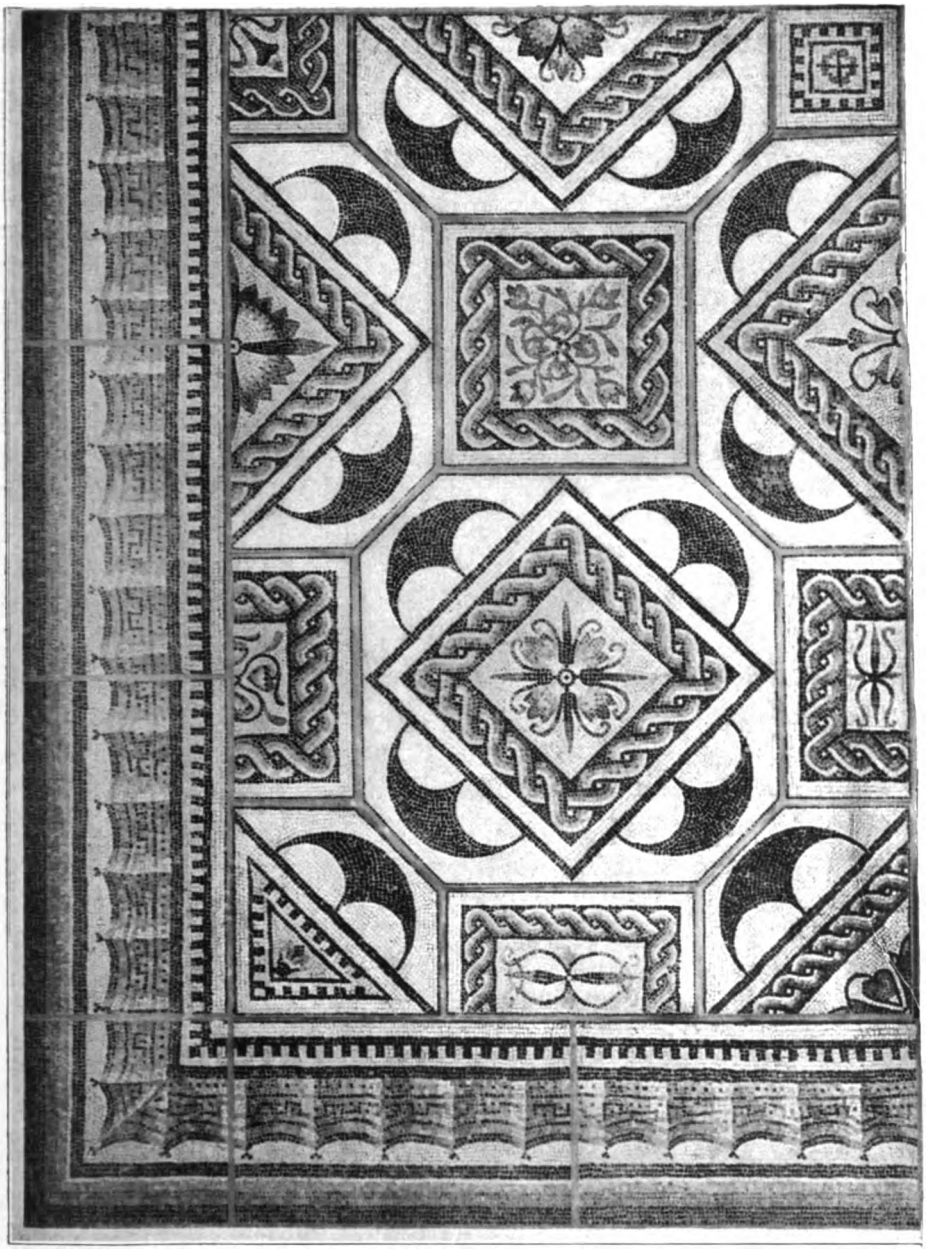

FIG. 13.—Mosaic from Carthage. Dillwyn Parrish Collection.

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Our second pavement (Fig. 13) from Carthage, however, in the opinion of the writer, should be put at a later date than the first. It is still in a good period, before all imagination had departed and given place to exhibitions of technical skill, but it shows the tendency to turn mosaic from a pictorial to a decorative art. In this specimen the patterns are all purely of a decorative nature; but there is a great deal of boldness of imagination and conception in the patterns employed. In fact, it is a very beautiful pavement, and though the space is somewhat crowded, the details in no way force themselves upon the critical observer, but blend to make each pattern a perfect whole, harmonious in relation to the other designs around it. For this reason it seems best to put this mosaic as a work of the end of the first or beginning of the second century A. D.

The other three mosaics that formed Mr. Parrish's gift to the Museum will be found in Alcove B in the room on the right of the stairs. This is the room where are also to be found the sculptures, Roman glass, and reproductions of Cretan and Mycenaean objects. These three mosaics, which, although small, are nevertheless important examples, are said to have come from Rome.

The first one to be considered here is the charming one with the picture of a duck. This is probably the earliest of the five mosaics of the collection, and may date before the Christian era. This exquisite fragment has much in common with some of the mosaics found in the House of the Faun at Pompeii, which is dated in the second century B. C. according to the great German scholar August Mau, in his book on Pompeii published in 1908, in the second century B. C. Modern investigations carried on since that time make scholars incline to make this house a first century rather than a second century dwelling; but even then it is early enough to be very important in the history of mosaics.

In one of the wings off the main atrium of this house were found mosaics showing ducks. These are said closely to resemble the duck in the Museum's mosaic. So it seems safe to say that in this charming fragment we have an example of work of at least the first century B. C., or perhaps the second. In this mosaic, as in those in the House of the Faun, we find a most ingenious use of glass in combination with colored stone to show, in this case, the neck and bill of the bird. The naturalism and effectiveness of the composition show a certain amount of Greek influence and put it in about the best period of all. It, too, is of Opus Vermiculatum.

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The next one to consider is also of Opus Vermiculatum, but is of considerably later date. It is the one showing two griffins facing an urn (Fig. 14). Of one of the griffins, only the head and fore-legs are preserved. Here the mosaic art has become absolutely decorative, and shows it in attempting a more or less pictorial design; for it treats it in a purely decorative manner. This is the stiff, conventional, unimaginative work of the second century A. D. The griffins are in conventional decorative postures, reminding one of an heraldic device. On the other hand, the lack of imagination is in some degree made up by the great technical skill shown in the treatment of the griffins. Color is obtained by the use of cubes of opaque glass applied very judiciously in the wings and tongues of the two beasts; and not

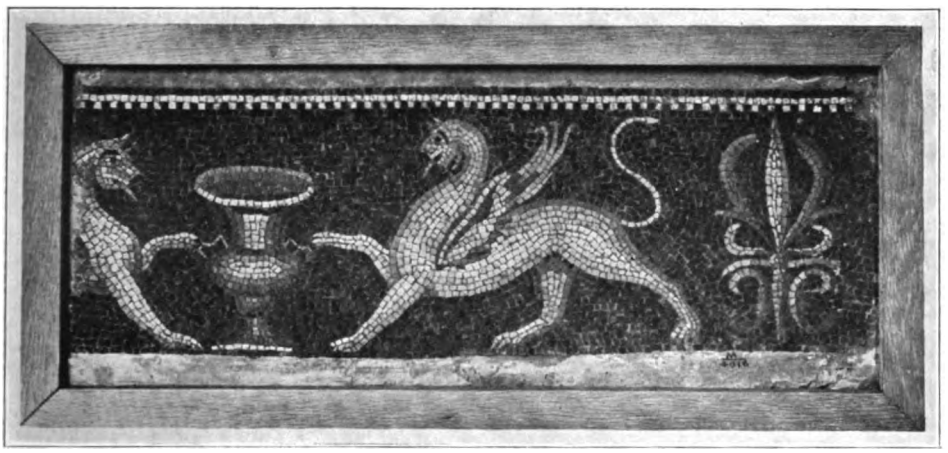

FIG. 14.—Mosaic from Carthage. Dillwyn Parrish Collection.

only are they done minutely, but the whole mosaic is made with the greatest skill and precision. But we miss here the naturalness and simplicity of the duck.

The third and last specimen is a bit of Opus Alexandrinum. As has been said earlier in this essay, this technique was introduced in the late Empire, and rapidly became popular. This is an excellent example, with its alternating squares of red and green porphyry. The author was told on very good authority that the white designs were not employed in this technique until Christian times, so that this mosaic should probably be considered Early Christian rather than Roman, and dated as such. This would put it in the third or fourth centuries of our era. It is especially hard to date this

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fragment accurately, as this technique remains the same for centuries.

In conclusion, it may be of interest to say a few words as to how the Greeks and Romans manufactured their mosaics. Vitruvius begins his seventh book with instructions as to how to make a mosaic pavement, and the finds bear out his instructions, as they are made in the way he describes.

First the earth was carefully rammed down to a firm and even surface; on this was then laid a thick bed of stones, dry rubbish, and lime, from six to nine inches deep. This bed or foundation was called "rudus," and was packed down as solidly as possible. Upon this was laid a bed of concrete, called "nucleus," from four to six inches thick, composed of one part of lime to three of pounded brick mixed with water.

When this concrete was still soft, the design was sketched on it with a wooden or metal point, and the "tesseræ" or cubes of stone or glass were inserted with their smoothest end uppermost. Then lime, pounded white marble, and water were mixed to the consistency of cream, forming a very hard-setting cement, called "marmoratum." This cement, while fluid, was poured over the marble surface, and well brushed into all the interstices between the tesseræ. When the concrete and cement were both set, the surface of the pavement was rubbed down and polished.

In conclusion, the Museum is very fortunate in possessing these good examples of the Roman mosaic art, especially the large and important specimens from Carthage, where some of the most beautiful of Roman mosaics have been found, and where the artistic and technical skill of the worker in this art reached a very great height.

S. B. L.

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THE SIBERIAN EXPEDITION

IT was in 1913, while engaged upon her recently published work "Aboriginal Siberia," that Miss M. A. Czaplicka, of Somerville College, Oxford, finding but scanty material for the study of the peoples of north central Siberia in the works of the writers, mainly Polish and Russian, who have lived among the Siberians, formed the plan of going to secure the required information herself. The result was the expedition to the Yenisei, organized by Miss Czaplicka, under the joint auspices of the Oxford Committee for Anthropology and the University Museum, which latter I had the honor of representing on the expedition.

We reached Krasnoyarsk, where, in about the latitude of Copenhagen, the Trans-Siberian Railway crosses the Yenisei, early in June, 1914. Only a brief stay was necessary here, thanks to the energy of Mr. G. K. Christensen, then of the Siberian Steamship, Trading and Manufacturing Company, whose knowledge of local conditions and whose popularity with merchants and officials along the river, enabled him to be of great service to us, both on this occasion and on our return to Krasnoyarsk a year later. We owe to this gentleman and to Messrs. Peacock and Novodvorski, the former of the firm of Revillon Frères, the latter a countryman of Miss Czaplicka, a Polish lawyer residing in Krasnoyarsk, a hearty acknowledgment of thanks for many kind offices rendered us. Mr. Novodvorski is one of the few Poles, out of the many in Siberia, who have made a long stay in that country entirely of their own free choice and will.

Krasnoyarsk is a flourishing town of about 80,000 inhabitants, on the left or western bank of the Yenisei in south central Siberia. It is surrounded by a rich agricultural country, and is the distributing center for the products of the whole Yenisei valley. A number of fairly comfortable passenger steamers ply between this town, Minusinsk to the south, towards the Sayan Mountains and the Mongolian border, and Yeniseisk to the north. These towns are about an equal distance on each side of Krasnoyarsk—three days' steaming up-stream and two days' down. North of Yeniseisk the largest settlement is Turukhansk, a village of about thirty houses, and the

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residence of the Russian *pristav*, or police administrator of the whole Turukhansk country, which is about a million square versts in extent, between Yeniseisk and the mouth of the river.

Turukhansk is about fifty miles south of the Arctic Circle. The other Russian settlements along the 1000 mile stretch of river north of Yeniseisk consist of from one or two to half-a-dozen log huts inhabited by Sibiriak (colonial Russian) traders, fishermen and trappers. The river is open for traffic by steamer during about four months of the year. Two or three steamers make one or two voyages during this season between Yeniseisk and the mouth of the

FIG. 15.—Fishing encampment. Yenisei-Ostyak.

river, conveying fishermen and their stores and catches up and down the stream.

Our destination was a point at the head of the estuary of the Yenisei where a little muddy tundra stream called the Golchikha joins it. This is in latitude 71° 43′ n. Two Russian traders live there all the year round, and many Dolgan, Yurak and Samoyed families come in from their tundra homes during the summer for the fishing. The average summer temperature at Golchikha (the river has given its name to a strip of land of indefinite limits on both sides of its mouth) is about 40° F. The sun is above the horizon con-

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tinuously for about eighty days during May, June and July. Snowfalls in winter are heavier in this coast region, but temperatures are not so low, as in the inland "stony" tundra to the southeast, where we spent the winter and where we more than once experienced a temperature lower than −80° F.

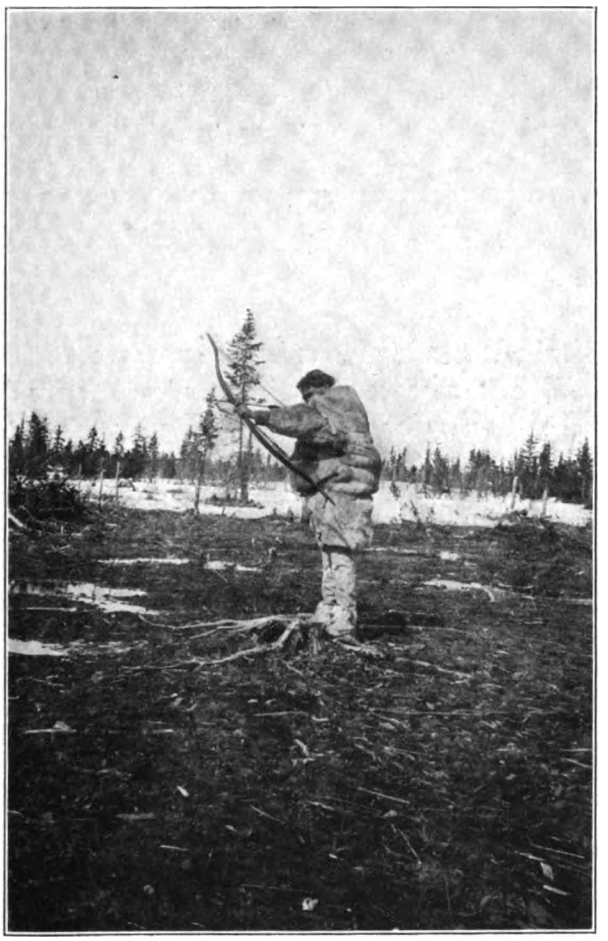

FIG. 16.—Yenisei-Ostyak with bow.

It took about three weeks to reach Golchikha from Krasnoyarsk on the little paddle wheel steamer *Oryol*, formerly the *Glenmore*, a much traveled elderly craft, whose youth was spent on the Clyde. She was brought to the Yenisei, via the Kara Sea, about thirty years ago, by Capt. Wiggins, an English sailor to whom belongs the distinction of having reopened, in modern times, a northern trade route

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to Siberia, which had been abandoned by adventurers for over two and a half centuries. The *Oryol* had two barges in tow, and made many stops to put ashore fishermen with their stores and empty barrels for fish, so that the 1500 miles of our river journey northwards, although it was with the stream, was not exactly rapid transit.

The frequent stops to land passengers and their effects gave us the opportunity of going ashore and visiting native fishing encampments. The first natives we came into contact with in this way

FIG. 17.—Yenisei-Ostyak shaman.

were the Yenisei-Ostyak, so-called. These people, who are found on the Yenisei above Turukhansk, are probably the oldest existing racial element in the lower half of the Yenisei valley. They are certainly not related to the Ostyak proper of the valley of the Ob and the Ural region. The scanty evidence concerning their origin makes it seem highly probable that they are the descendants of a fair-haired, blue-eyed stock who, as recently as the sixth century of our era, continued to inhabit the upper, or southern, Yenisei valley, and who, after that time, became intermingled with people of Turkic

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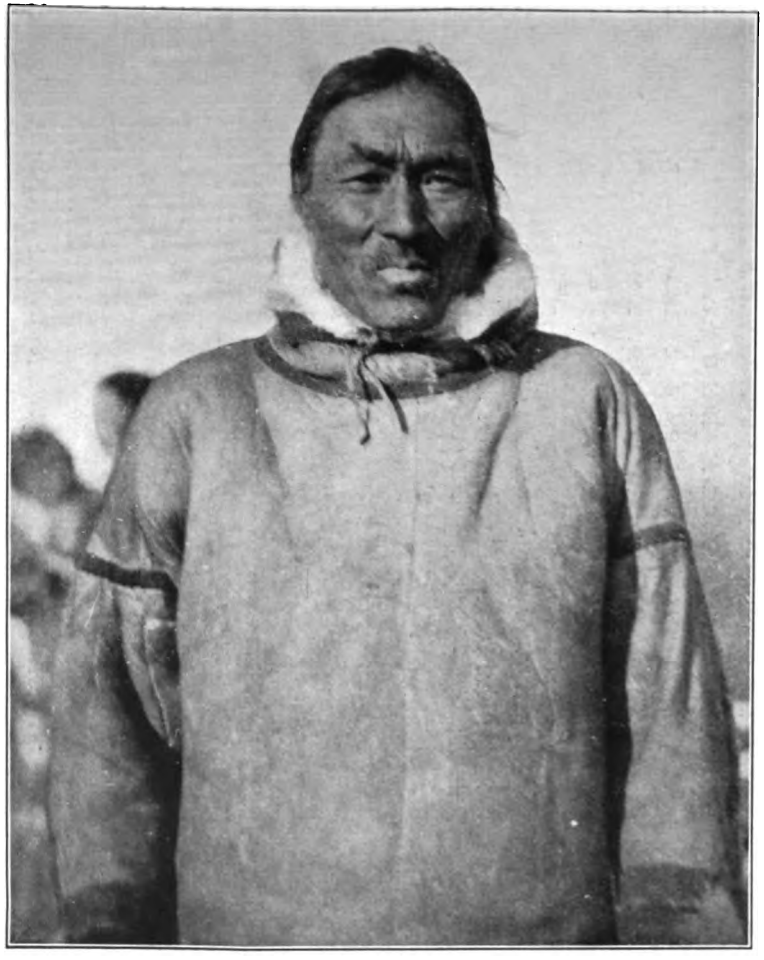

FIG. 18.—Samoyed of the Bai clan.

FIG. 19.—Profile of Fig. 18.

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blood. The Yenisei-Ostyak are dwindling in numbers, and are doomed to extinction at no very distant date. Originally a vigorous people, who resisted the Cossack invaders for more than a generation, the ravages of anthrax among their reindeer herds, and the baleful results of their intercourse with unscrupulous and unhealthy European traders, have brought them to this pass. They are still the most skilful makers of bows, and their shamans, or medicine-men, are still the cleverest, of all the natives between the middle and lower Ob and Lena, and their reputation in both these respects is still high among the neighboring tribes.

At Krestova, well within the Arctic Circle, we made the acquaintance of the trader Ivanoff, famous, or notorious, all along the river. He belongs to a family of *starozhili*, or "old settlers," a name given by the Sibiriaks to those of their number who come of families settled in Siberia for several generations. This man has lived from boyhood among the Yurak, and knows their language and customs with peculiar intimacy. Not content with the adoption of the methods commonly employed by the Russian traders along the river for fleecing the natives, Ivanoff has gained the confidence of the Yurak and found an infallible means of enriching himself at their expense by taking up the practice of the magic art of the shaman. He is so skilful at this that no Yurak shaman has a greater reputation; and this gives him such great advantages in his dealings with the people that no other trader in that region can begin to compete with him. He has a comfortable log house at Krestova, another at Dudinka, further south where the northern route into the tundra begins. At Krestova or Dudinka he lives with his Russian wife. Somewhere along the tundra trail his Yurak wife and her sons pitch their moving tent to wait for Ivanoff when he makes his customary winter trading tour.

It was a dull, gray June day when we dropped anchor at Golchikha. In the two thousand and odd versts of river that we had traveled since leaving Krasnoyarsk, we had passed completely through the great belt of *taiga*, or forest land, that stretches across Siberia from the Urals to the Pacific, and were now in the heart of the tundra, having seen the last stunted trees near Dudinka, 400 miles behind us. From the deck of the *Oryol*, we looked over the half mile or so of water, muddied here by the swamp fed current of the Golchikha, which separated us from the shore. This was still, so far as the flat foreshore was concerned, covered with snow to within a few feet

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FIG. 20.—Back and front view of Samoyed costume. The picture shows also an Ostyak shaman's drum.

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of the water's edge. Beyond this rose low hills, bare and brown, their cracked and mouldering sides presenting a melancholy picture of slow, age-long decay. Yet within two weeks these same hillsides were covered with green grass spangled with flowers of the most varied hues; and even in the marshy bottoms, wherever a little

FIG. 21.—Samoyed fisherman; fish split open drying in the sun, on left.

mound rose above the reddish brown bog water, a veritable riot of color was spread out under the never-setting sun.

At Golchikha the agent of Mr. Kucherenko, the owner of a trading steamer which plies on the lower Yenisei, had converted into a two roomed residence for our party the *banya*, or bath house, which

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Mr. Kucherenko had erected for the use of his crew. Here we made our headquarters for the summer of 1914, within easy reach of the village of native tents which grows up during the summer fishing season when many of the tundra folk come to the river to lay in a stock of dried fish for the winter; and from here we made excursions up and down and across the river and by sledge into the tundra, wherever we heard of the presence of natives. In this far northern country, where the ground is extremely soft and spongy even when it is not actual swamp or marsh, sledge travel is quite practicable

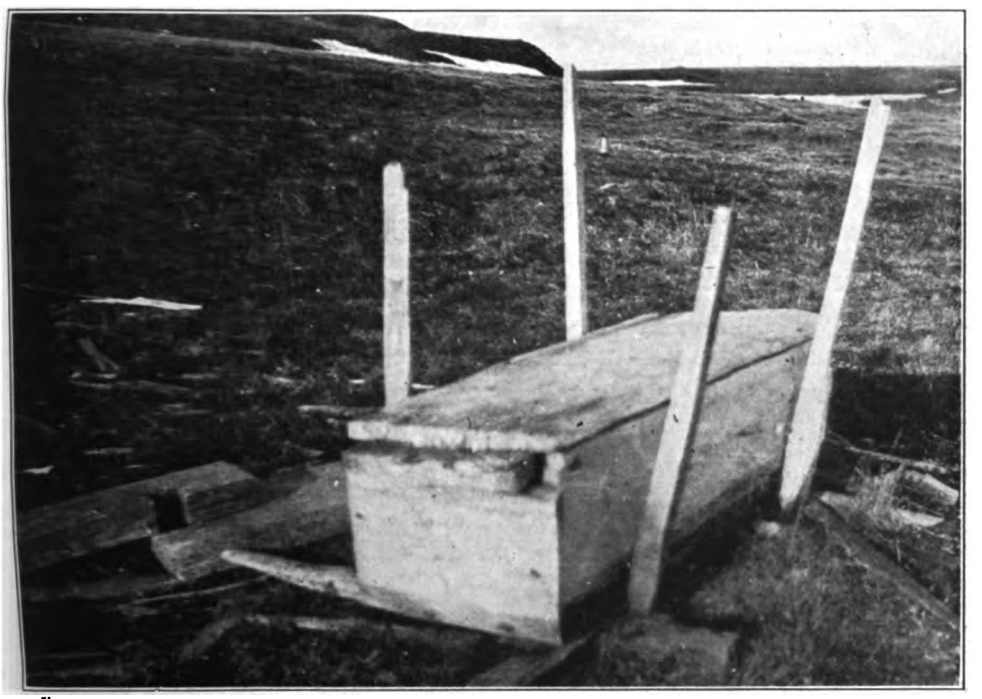

FIG. 22.—Samoyed tomb at Golchikha.

in summer, though it is hard on the reindeer. Five or more are harnessed to a sledge, instead of the two which are usual for winter travel.

The tribes encountered in this region were the Samoyed, Yurak and Dolgan. The appearance of all these northern tribes is very similar, and, though closer acquaintance makes it possible to distinguish them by certain not very obvious traits, actual measurements of heads and stature do not show any very marked differences. They are all short, yellow-skinned people, with exceedingly dark

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brown or black straight hair. Among the Samoyed and Yurak, at any rate, the eye is not often very markedly Mongolian. All have small and shapely hands and feet and rather under-developed legs; they are not much given to walking, when they can avoid it. The Yurak are a Samoyedic people; the Dolgan are Yakutized Tungus.

Samoyedic tribes range from the Taimir Peninsula, northeast of the mouth of the Yenisei right across northern Siberia and Russia westward to the borders of Lapland. The Dolgan occupy a strip of territory slanting northwestward from the upper Khatonga to the mouth of the Yenisei, bordered on the south by the moss pastures and hunting grounds of the northern Tungus, with whom we spent the winter, and of their neighbors the Yessei Yakut.

The reindeer is the focal point round which all life centers. The whole material culture and social organization is conditioned by the opportunities and limitations incident to the occupation of reindeer breeding. This has deeply affected religious beliefs and observances. The reindeer supplies clothing and meat and drink; the wide extent of territory necessary for the pasturing of even a small herd, and the frequent migrations necessitated by the rapid exhaustion of the moss in a pasture have, by making it necessary for families to live far apart, greatly modified institutions once much more highly developed; the reindeer has an "owner" or protector in the spirit world, a being whom it is extremely important to placate either by the offering of spirits of slain deer or by the dedication of living deer to his service.

The largest herds are seen among the Samoyed and Yurak. A herd of about 5000 deer, the property of three brothers, was the most numerous we saw among the Tungus of the Limpiisk tundra, whose herds are commonly very much smaller than that; while the Samoyed herds fairly often number from five to ten thousand deer. All the tribes supplement their stock of food stuffs by hunting and fishing; those with the smallest herds are naturally most active in this respect. Individuals who have become extremely reindeer poor gravitate to the haunts of the Russian or Sibiriak trader on the river, and there fall into a condition of peonage, becoming degenerate and drunken. This is the condition of a large number of Yenisei-Ostyak and a smaller number of Yurak and Samoyed; it happens to relatively few of the Tungus. Not, as we have seen, that the Tungus have more reindeer, but either because game animals are more abundant in their territory, as well as fish in the lakes remote from the Yenisei

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and the trader, or because they are a sturdier and more independently minded people.

Two great attractions which kept our bath house villa by the Golchikha filled with natives during many hours of the incessant daylight were the phonograph and the medicine chest. The first application for medicine was made by a rich Samoyed who came in from the Big Low Tundra to buy tea and tobacco from Kucherenko's agent, and was told of our arrival, and of our *Tabloid* equipment. So he came and demanded medicine, without preliminaries. What

FIG. 23.—Samoyed in his dug-out.

did he want medicine for? His wife had a heartache. This was surely some romance of the tundra. What was the matter with her heart? "It aches;" he placed his hand over the pit of his stomach. This called for a simpler diagnosis than had at first seemed likely; he got a few harmless tabloids, and went his way to his *chum* (tent) in the tundra. But his departure was immediately followed by an epidemic of "heartache" among the ladies of the *chums* by the river; and we were besieged for several days by solicitous husbands, demanding little white tabloids for their wives—which I strongly suspect

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never reached the alleged sufferers, being appropriated to their own use by the messengers long before they got back to their homes.

The great majority of the natives of this region, though classed as Christians by the Russian administration, are in fact still convinced shamanists. The degenerate fisherfolk who are permanently settled on the river, *i. e.*, those who fish for the traders and not for themselves, and who are all baptized, take a cynical view of religious questions, well summarized by a Samoyed of this category, who said: "Christians have only one god, and he does not require sacrifices of reindeer; it is cheaper to be a Christian."

Mr. Antonoff, the second trader at Golchikha, well known for his general uprightness in his dealings with the natives, was of great service to us in the matter of getting about on the river. It was in his boat and under his pilotage that we made our first long trip across the mouth of the Yenisei to visit a group of Yurak *chums* at Oshmarino. On our return we were overtaken in mid-stream by one of the violent storms of wind so frequent in this exposed northern region. The boat was rather overladen, and it took twelve hours of hard pulling—and constant baling, for we were several times all but swamped by the heavy seas—to make the Golchikha side. The river is here about fifteen miles wide, and there was still much floating ice. For five hours we were stationary in one spot about halfway across, unable to make an inch of headway, and during much of that time, Antonoff, who is famous for his great physical strength, alone kept the boat's nose steady against the wind, the rest of us having almost as much as we could do to bale out the water which kept continually breaking over us.

The Yurak tent, like all the movable dwellings of the tribes of this region, is a wigwam with a covering of reindeer skins. The half near the entrance is reserved for the women, the other half for the men. The area which women may not enter extends also outside the tent for some distance behind. Here stand the sledges on which are placed figures of that one of the three highest divinities which the head of the family selects as his patron. The ground in front of the tent is profane and common to both sexes. With the coming of the sun in spring a festival called "the changing of the sledges" is held, at which numbers of the tribesmen assemble and join in making new sledges for the gods, the old ones being abandoned and left standing on a hill, with the fore part of the sledge turned towards the north, the land of cold and darkness, while the new sledges, before

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being removed by their owners, are arranged back to back with the others, their forward upcurving runners pointing to the south, the region of light and warmth. A shaman presides over the ceremonies held in connection with this spring festival.

Before setting out upon the winter journey to the Tungus territory whose eastern boundary is the lake country halfway between the lower courses of the Yenisei and the Lena, we consulted the Samoyed shaman Bokkobushka, saying that we wished to know how

FIG. 24.—Dolgan women riding reindeer.

we should fare on our way. I am bound to say that we did not receive any very definite information, the only thing in the nature of a prophecy spoken by the seer being a cryptic utterance addressed to Miss Czaplicka which might be interpreted as having a certain bearing on political conditions in Poland brought about by the war. But his methods were interesting.

Bokkobushka seated himself crosslegged on the ground in his *chum*, while his assistant, the Yurak Yannasuo, threw over him a

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large cloth which completely concealed him from view. After some moments of silence, a low sound of chanting issued from the cone-shaped bundle that held the shaman. The sound rose progressively in pitch to the middle of a verse or rhythmic sentence, broke into a shrill, quavering whine, sank again to a whisper, and ceased—to wait for the answering chant of the assistant. This was repeated several times. Then Bokkobushka inquired whether one of us had not a dark spot on the right arm. It was a lucky hit. "Ah," said the shaman, "then you are the people the spirits asked me about." He relapsed into silence.

Soon there came from the bundle a querulous moaning, which gradually grew articulate as the chanting was resumed, to be followed by another silence, out of which arose the voice of Bokkobushka, announcing the result of his second interview with the spirits. "Where you left one home," he said to Miss Czaplicka, whose home was in Warsaw, "you will find three homes made one." Thus we had had first divination and then prophecy.

The third function of a shaman is to prevent or heal sickness or other disaster. Bokkobushka now threw off his covering, and spoke in a conversational tone with the spirits of disease. Then he dipped his forefinger in water and touched each of us three times under the left ear. He explained that he had requested the "bird" of smallpox not to touch us. But the demon was obdurate and declared that he intended to pay us a visit. Therefore Bokkobushka, to thwart him, wrought this charm, and assured us that we should in consequence be quite safe from injury.

To prepare for the winter journey to the Limpiisk tundra, it was necessary to return to Turukhansk, from which place starts the least frequented, and therefore for our purposes the best, trail to the lake country about the upper waters of the Khatonga River. The more northern route from Dudinka is used by Russian traders as being the easier; it crosses open, mostly level, country over which it is possible to travel in a *balok*, or housesledge. These (Russian) contrivances of fur-lined canvas, containing a stove, are too large and heavy for the mountainous, partly forest covered country, through which our trail lay. On the other hand, by following the Turukhansk-Lake Yessei route we should be among people whose contact with Russians was of the slighest.

At Turukhansk, while waiting for sufficient snow to fall to render sledge travel practicable, we completed our outfit of furs,

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provisions, etc., and procured the only native interpreter available, a Tungus woman, the widow of a criminal exile, and connected with the "best families" of the Limpiisk tundra. She is a lively and decidedly wilful lady, in vigorous middle age, with opinions of her own about the kind of questions that ought to be asked of one's native hosts, and the way such questions should be worded. Fortunately Miss Czaplicka's knowledge of Russian and Tungus prevented this being any real hindrance to our work.

FIG. 25.—Dolgan deerherd.

Northeastward from Turukhansk our way lay through about 1000 versts of the mountainous "stony tundra," rugged moorland plateaus fringed by rocky ridges, and intersected by the valleys of innumerable streams, small and large. Here and there are straggling patches of forest, the birches and cedars of the Lower Tunguska (the most northerly of the three largest right tributaries of the Yenisei) soon giving way to scattered and stunted groups of larches. During the greater part of the outward journey we had no more than two hours a day of what we called daylight—really a kind of twilight—heartily welcome to eyes weary with waking through from seven

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to twelve hours of travel in the dark—when we never saw the sun itself, only guessed it not far below the horizon, from the gorgeous rose and orange tints that lit up the higher peaks in strange contrast to the blue shadows of the valleys, to which, as far as possible, the trail kept.

We lived in the native tents, spending two or three days at a time in those where the hosts were older folk, more inclined to tell and hear of the things which interested guests and hosts respectively.

FIG. 26.—Tungus shaman's costume and drum.

When there was any special reason we stopped longer still, as for instance for the *munyak* at Lake Chirinda, one of the more westerly of the chain of some twenty lakes, of which Lake Yessei, on the borders of the Yakut country, forms the northeastern limit.

The *munyak* is the native council. To it come representatives of each of the ten families (rather, clans) which make up the roving population of the Limpiisk tundra. It elects a "prince" from among its own members for a term of three years, as the people's representa-

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tive to the Russian administration. His chief duty in the eyes of the Russian authorities is to bring in to the *pristav* on the river the *yassak* or tribute of his local group, which he collects at the *munyak*. The prince presides over the *munyak*, as "speaker" and as judge. In the latter capacity he has jurisdiction in practically every case, short of manslaughter.

The present prince of the Limpiisk Tungus is a great friend of the Yakut, who are at present diligently spreading their own brand of *Kultur* among the Tungus near Lake Yessei. The

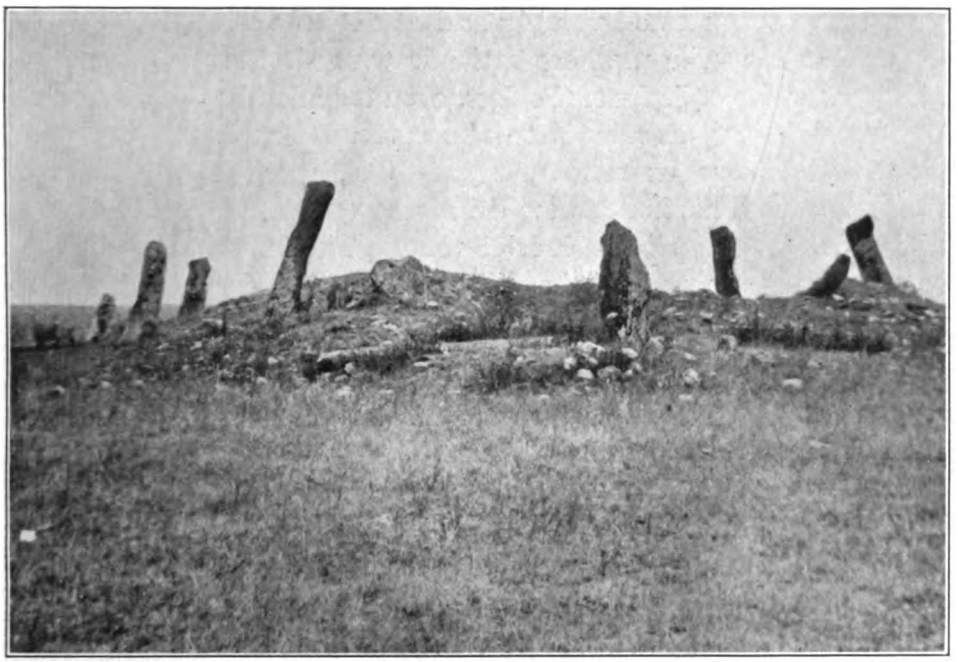

FIG. 27.—A Kurgan in the Abakan steppe.

Limpiisk people are not very appreciative—rather resentful, in fact—of the advantages to be derived from contact with a more advanced tribe. Now, it appears that a certain Tungus of the Hukachar clan, rivals of that of the Udigir, to which the present prince belongs, had used an insulting term in conversation with a Yakut trader, a friend of the prince's. The Yakut laid a complaint before the prince in *munyak*. The Hukachar contended that the complainant had a wrong understanding of the matter. He (the complainant) had omitted to say good-bye to the Hukachar on leaving a tent where both had been entertained by friends, where-

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upon the defendant had exclaimed: "Why don't you shake my hand? Am I a **Polak?*" using the objectionable term, which had thus, he claimed, not been applied to the complainant at all. The interpreter seemed to make no attempt to set the Hukachar's version of the story clearly before the Yakut; neither did the prince who speaks Yakut perfectly. For fully two hours the hearing continued, the misunderstanding (if it really was such) growing deeper and more embittered, as the prince dilated on the heinousness of the Hukachar's offence in causing annoyance to a friendly stranger. The prince required his tribesman to pay the fine demanded by the Yakut. The Hukachar protested volubly and at extreme length.

At last the prince, whose attitude towards the defendant had been obviously hostile from the first, even truculently so, ordered the Hukachar to pay or submit to the extreme penalty that can be inflicted under Tungus customary law—*i. e.*, have his arms pinioned from behind and his hands bound in front of him, and be led out to solitary confinement in a special tent. The knowledge that his enemy had the power, and the will, to inflict this disgrace upon him, caused the Hukachar to yield, after a further vigorous protest. He proceeded to hand over the fine. But the Yakut, who had preserved an attitude of impassive and dignified aloofness during the whole of the proceedings, refused to take it. He had changed his mind, he said; he now only wished that the Hukachar should give him his hand in token of apology and renewed friendship. It took another hour to bring about a settlement of the dispute on this basis. Only the actual production of ropes, and the approach of two of the prince's aides to a strategic position on each side of the defendant, finally caused him to yield and extend his hand with no very good grace to his accuser.

A short stay among the Yakut in the neighborhood of Lake Yessei closed our outward journey. The season was getting late, and blizzards were frequent as we made our way back to the Yenisei by a slightly different route. We returned to Turukhansk just in time

* The Russian word for political exile is *politicheski*. This has been corrupted by the peasants on the river to *polak*, which means Pole. The change has a certain appropriateness, since a number of the "politicals" are Poles. Of late years circumstances directed by officials have brought the "politicals," formerly popular with the Siberian peasants, into discredit with them, and the term *politicheski*, or *polak*, has become one of reproach. The native trappers and traders have taken this term back with them into the tundra. *Polak*, and the Tungus *Ulak* (bad man) and *Nienakinma* (dog), are the commonest imprecations heard among the Tungus of the Limpiisk tundra, so that the wrongs begun a century and a half ago on the Vistula echo today on the distant Khatonga.

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to avoid being caught and detained indefinitely in the interior by the breaking up of the ice on the lakes and streams of the route.

By the end of May the ice was out of the Yenisei, and we returned by steamer to the south, where a short visit was paid to the *kurgani*, or burial mounds of the Abakan steppe, and to the so-called Tartars who now live among these relics of a bygone civilization. These people are mainly horse nomads, and have been much more affected by Russian and Sibiriak influences than any of the people in the northern Yenisei valley. A considerable number of them have become settled agriculturists.

The journey back to London occupied a much longer time than our outward voyage. Formalities and certain complications and delays due to war conditions necessitated, for example, a stay of nearly a month in Petrograd. Thence we returned, via Torneo, Stockholm, Bergen and Newcastle to London, which we reached early last September, after an absence of about fifteen months.

H. U. HALL.

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THE DOUBLE AXE AND SOME OTHER SYMBOLS

THE origin and development of symbolism, letters, and designs used in decoration either with or without symbolic meaning is a field of investigation that can never be exhausted. The derivation of a symbol may be directly indicated by its form and may be very simple and obvious, or its origin may be quite different from what it seems. Again, a symbol may migrate from one people to another or from island to island or from continent to continent, modifying its form and taking on new meanings for the confusion of anyone who would trace its migrations. Perhaps the most perplexing thing about such devices is an extraordinary habit they have of deriving themselves in identical forms from totally different objects in different parts of the world and getting themselves associated in each instance with similar ideas.

An example of one or the other of these two classes—migration or convergence—is furnished by the double axe of ancient Europe and the so-called bannerstone of ancient America.

Double axes made of bronze and found in Crete are shown in the collections in the University Museum. Their date is about 1500 B. C. They appear to have been intended for use either as weapons or for hewing wood. The double axe of Crete made its appearance after the beginning of the Bronze Age. The stone axes of the period immediately preceding the Bronze Age are never double.

Besides the full sized axes made for use, there have been found in Crete of the Bronze Age, miniature axes of gold, bronze, ivory and clay. These are evidently symbolic ornaments and sometimes votive offerings. The outline of a double axe was found at Knossos on a clay sealing which Sir Arthur Evans assigns to the Middle Minoan I period. The well-known labyrinth or palace excavated by Evans at Knossos takes its name from the double axes carved in outline on its walls. The same design is painted frequently upon Late Minoan I pottery and engraved upon sealstones, and in all these cases the carving or painting has a symbolic significance. The natural inference is that the double axe in Crete was a sacred object and the symbol a cult.

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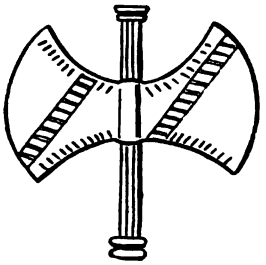

FIG. 28.—Votive axe. Kavusi, Crete. B. S. A., Vol. VII.

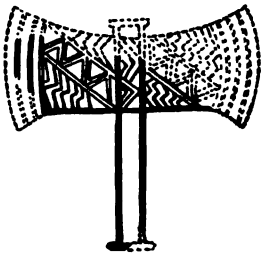

FIG. 29.—Double axe from vase painting. Knossos, Crete. B. S. A., Vol. VII.

FIG. 30.—Bronze votive axe from Dictean cave, Crete. B. S. A., Vol. VII.

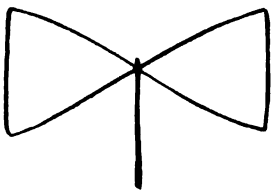

FIG. 31.—Double axe incised upon stone pillar. Knossos, Crete. Mycenean Tree and Pillar Cult, Evans.

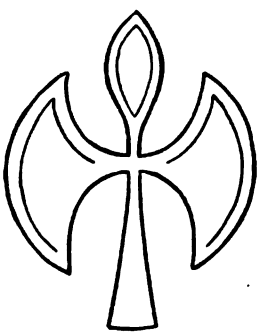

FIG. 32.—Double axe from signet ring. Knossos, Crete. Scripta Minoa, Evans.

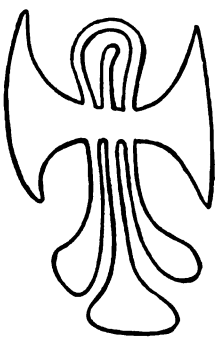

FIG. 33.—Double axe from vase painting. Gournia, Crete. Gournia, Boyd.

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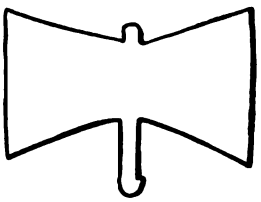

FIG. 34.—Double axe from clay impression. Knossos, Crete. Scripta Minoa, Evans.

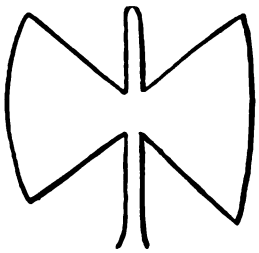

FIG. 35.—Double axe from clay sealing. Knossos, Crete. Scripta Minoa, Evans.

FIG. 36.—Double axe from vase painting. Pseira, Crete. Anthro. Pub. Univ. Mus., Vol. III.

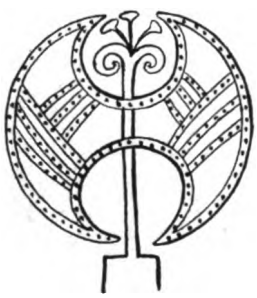

FIG. 37.—Double axe from vase painting. Pseira, Crete. Anthro. Pub. Univ. Mus., Vol. III.

FIG. 38.—Double axe from vase painting. Mochlos, Crete. Antiq. Cretoises, Vol. II, Maraghiannis.

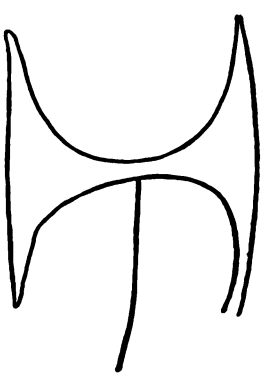

FIG. 39.—Double axe incised on terra cotta fragment. Palace of Phaestos, Crete. Monumenti Antichi, Vol. 14.

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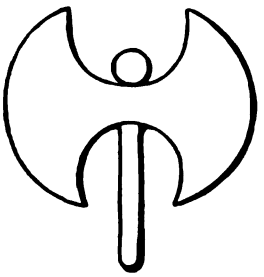

FIG. 40.—Double axe. Phaestos, Crete. Antiq. Cretoises, Vol. I, Maraghiannis.

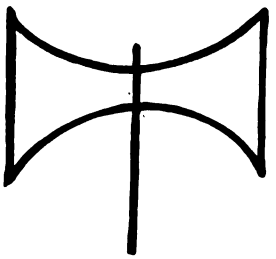

FIG. 41.—Double axe from Mycenaean sherd. Crete. Monumenti Antichi, Vol. 14.

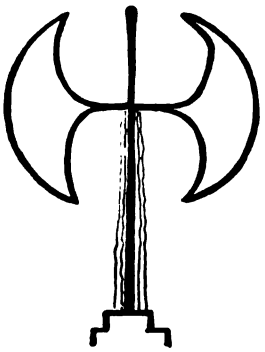

FIG. 42.—Double axe from painting. Palaekastro, Crete. Monumenti Antichi, Vol. 14.

FIG. 43.—Hittite god of the double axe. Cappadocia. Land of the Hittite, J. Garstang.

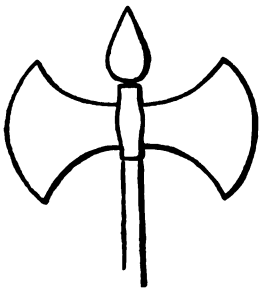

FIG. 44.—Double axe carried in Hittite religious procession. Cappadocia. Smithsonian Report, 1903.

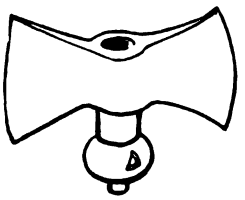

FIG. 45.—Bronze axe. Cyprus. Hist. de l'Art. Antiq. Phenecie & Cypre, Perrot & Chipiez.

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FIG. 46.—Axe from vase painting. Cesnola Collection Catalogue.

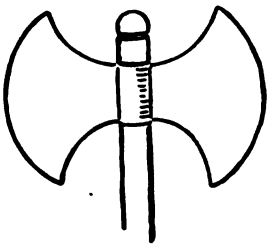

FIG. 47.—Axe in hand of Amazon. Magnesia in Asia Minor. Statuaire Grec and Romaine, Vol. I, Reinach.

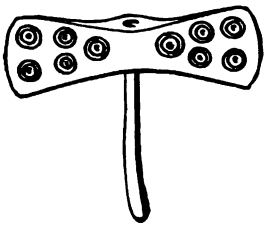

FIG. 48.—Miniature bronze double axe. Sparta. B. S. A., Vol. XIII.

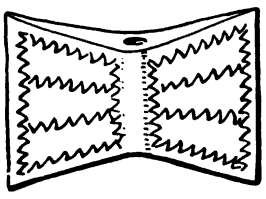

FIG. 49.—Ivory axe. Sparta. B. S. A., Vol. XIII.

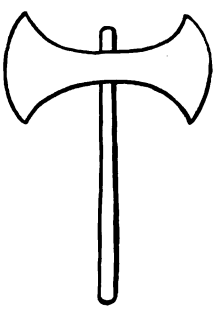

FIG. 50.—Axe from vase painting. Rep. Des Vases, I, Reinach.

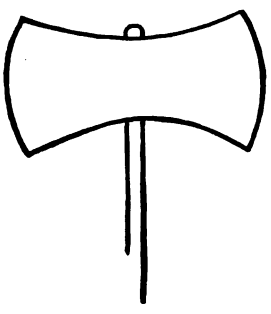

FIG. 51.—Axe from vase painting. Griechische Vasenmalerei, Furtwangler.

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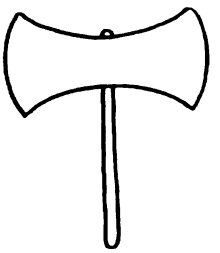

FIG. 52.—Axe carried by Greek warrior. Rep. Des Vases, Vol. I, Reinach.

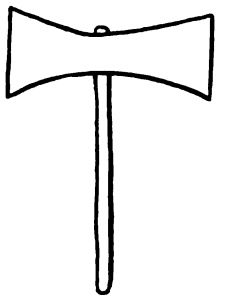

FIG. 53.—Axe carried by a woman at the death of Orpheus. Griech. Vasenbilder, Vol. III, Gerhard.

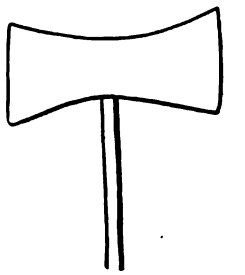

FIG. 54.—Axe wielded by Theseus in combat. Rep. Des Vases, I, Reinach.

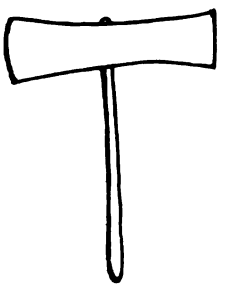

FIG. 55.—Axe carried by Herakles. Rep. Des Vases, I, Reinach.

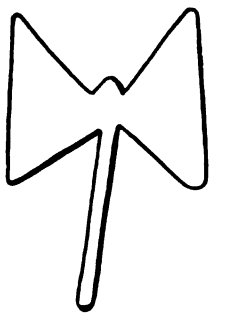

FIG. 56.—Axe carried by Oriental in combat. Rep. Des Vases, I, Reinach.

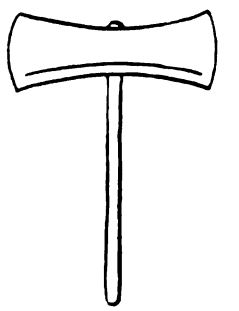

FIG. 57.—Axe from vase painting. Vulci. History of Ancient Pottery, Birch.

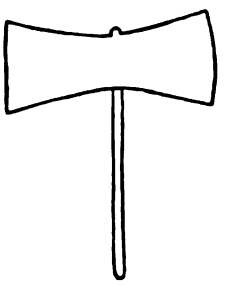

FIG. 58.—Axe carried by Ino in pursuit of Phrixos. Rep. Des Vases, Reinach.

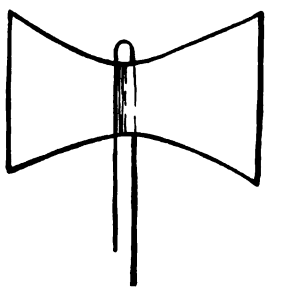

FIG. 59. — Bronze double axe. Central Italy, Etruscan Period. La Civ. Primitive Italie, Vol. III, Montelius.

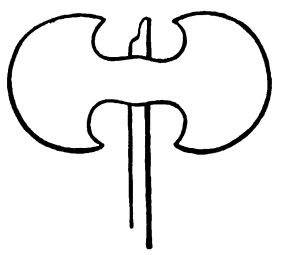

FIG. 60. — Bronze double axe. Central Italy. Etruscan Period. La Civilisation Primitive Italie, Vol. III, Montelius.

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FIG. 61. — Charon with double axe. Vulci. Etruscan Researches, Taylor.

FIG. 62.—Double axe from vase painting. Griechische Vasenmalerei, Vol. III, Furtwangler.

FIG. 63.—Charon, with double axe. Etruscan. Lexikon of Greek and Roman Mythology, Roscher, Vol. I, Part 1.

FIG. 64.—Axe on clay figurine. Hist. de l'Art. Gréce Arch., Perrot & Chipiez.

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FIG. 65.—Bronze coin, about 400 B. C. Thrace. Greek and Roman Coins, Vol. 25, Hirsch.

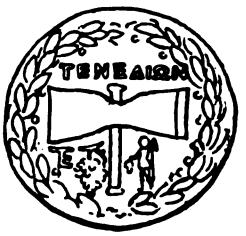

FIG. 66.—Silver coin, Second Century B. C. Island of Tenedos. Greek and Roman Coins, Vol. 13, Hirsch.

FIG. 67.—Silver coin, about 189 A. D. Island of Tenedos. Greek and Roman Coins, Vol. 19, Hirsch.

FIG. 68.—Silver coin, about 189 B. C. Island of Tenedos. Greek and Roman Coins, Vol. 25, Hirsch.

FIG. 69.—Silver coin, 351–344 B. C. Caria. Greek and Roman Coins, Vol. 18, Hirsch.

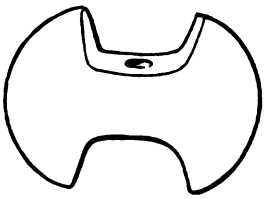

FIG. 70.—Amber bead in form of a double axe. Denmark. Danish Arts.

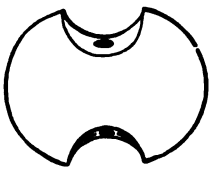

FIG. 71.—Axe-shaped ornament of amber. Scandinavia. Stone Age, Nilsson.

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In Greece the symbolic use of the double axe is apparent from very early times. In Sparta, numerous miniature axes in ivory or in bronze have been found dating from a period as early as 800 B. C. It appears in painted outline upon Dipylon vases and is frequently represented on red-figured and black-figured vase paintings of the Classic period where it is sometimes seen in the hands of various persons portrayed in the decorations. Small double axes of gold were worn by Greek women and are found in their graves. It is also shown on various Greek coins.

A double axe appears among the Hittite remains of Syria and Cappadocia where its use was evidently symbolic. It is found in Asia Minor and among the early Etruscan remains in Italy.

Scandinavia had double axes of stone in the Stone Age, evidently meant for use. During the same Stone Age, miniature double axes in the form of amber beads or ornaments were also in use.

The stone axes with two cutting edges that are sometimes found in Great Britain, appear to be a local development from the single axe and are less like the double axes of the Mediterranean than are the Scandinavian double stone axes.

From the evidence of archaeology, therefore, the use of the double axe either as a weapon or as an implement for domestic use or as a symbol or as all three was very general in countries around the Mediterranean during very early times. All the examples known, however, belong in the Bronze Age. In Scandinavia they are found in the late Stone Age, which, however, was contemporaneous with the Bronze Age in the Mediterranean area.

In all the countries mentioned, the tendency of the double axe is to become associated with ceremonial uses, if indeed it did not begin with these associations. It was everywhere a sacred object and its use was symbolic. It is true that it is sometimes represented as a weapon, as in the exploits of Theseus on a red-figured kylix in the British Museum or in the hands of the Amazons, as on a frieze at Magnesia in Asia Minor, and also on vase paintings. This occurrence of the double axe, however, as a battle axe used by the heroes of mythology is in no way inconsistent with its sacred attributes or its essentially ceremonial or symbolic character.

The fact that it is sometimes seen in the hands of Amazons led Nilsson to call the double axe "The Amazon Axe." There appears to be no warrant for this name. Nilsson is wrong in his statement that this is the weapon peculiar to the Amazons and that they are

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always armed with double axes. An examination of the vase paintings shows that Amazons are armed with other weapons quite as often as with the double axe.

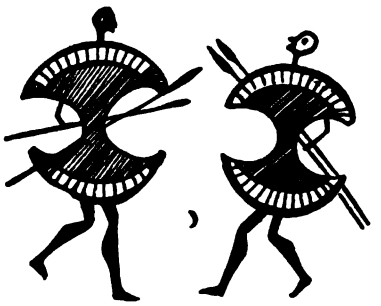

FIG. 72.—Shields from painting on Dipylon vase. Hist. de l'Art, Gréce Arch., Perrot & Chipiez.

AN ARCHAIC GREEK SHIELD

There appears to be a close connection between a certain form of Greek shield and the double axe. In the Archaic period in Greece this shield is shown in paintings on Dipylon vases, where it is carried by warriors. On the same pottery the symbol of the double axe plays a prominent part. It is hard to see why a shield of this shape was adopted unless it was in imitation of the outline of the double axe. It is quite intelligible that such a symbol might have been adapted to the form of a shield. If the double axe was a sacred object or a symbol of strength, or if its symbolism was that of protection, a shield of this form would naturally have more virtue than an ordinary shield. A similar form of shield, known as the Boeotian, is seen on Attic vase paintings and on Greek coins dating from the sixth century B. C. to the second century B. C.

FIG. 73.—Vase painting. Hist. de l'Art, Gréce Arch., Perrot & Chipiez.

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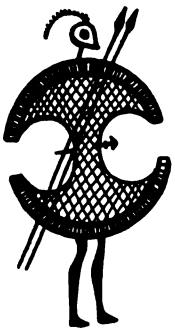

FIG. 74.—Shield from painting on Dipylon vase. A. J. A., Vol. XIX, No. 4.

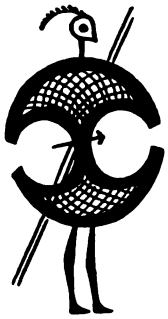

FIG. 75.—Shield from painting on Dipylon vase. A. J. A., Vol. XIV, No. 4.

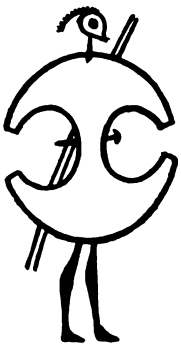

FIG. 76.—Shield from Dipylon vases. A. J. A., Vol. XIX, No. 4.

FIG. 77.—Double axe on a potsherd. Mitt. des Kais. Deuts. Arch. Ins. Athens, 1892.

FIG. 78.—Double axes and shield from painting on Dipylon vase. Hist. de l'Art, Gréce Arch.. Perrot & Chipiez.

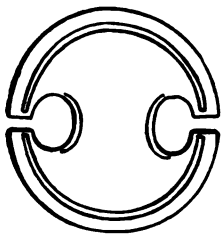

FIG. 79.—Shield from silver coin about 550–480 B. C. Halicartus. Greek and Roman Coins, Vol. 13, Hirsch.

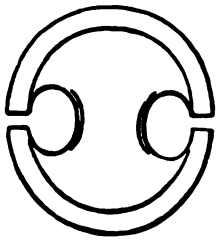

FIG. 80.—Shield from silver coin about 450 B. C. Thebes. Boston Museum of Fine Arts Catalogue of Coins.

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The Bannerstone

The class of objects to which this name has been applied by common consent is found in many different forms and made of a great variety of stones. It is an ancient thing used by the former inhabitants of North America. It is usually bored through the center as if for mounting on a staff, but is sometimes found without the bore.

Prof. W. H. Holmes, Director of the United States National Museum, has been kind enough to let me see the manuscript of his forthcoming book on American Antiquities and to give me his permission to quote from it the following passage.

> "Within the same region in northeast America, ~~the~~ and thinning out as does the gouge to the south and west, is an object of rare and highly specialized form, an axe-like implement, known as the bannerstone, with tubular perforation for hafting and with extremely varied wing-like blades. It is not found elsewhere in America. In northern Europe there is found a drilled axe of similar type and it is a noteworthy fact that this form of artifact throughout the Old World though originally perhaps a thing of use had wide and diversified application as a symbol. The following very interesting and suggestive statement regarding the 'Amazon Axe' is quoted from Nilsson. 'Stone weapons of this kind are rather variable, and the central part is often much shorter than the figure here referred to, resembling that shown in Fig. 174. The original of this sketch is from the south of Scania, and is preserved in my collection, but is not finished, there being no hole for the handle—but this weapon is always known by both ends being much more expanded and more or less sharpened. It is exactly like the axes with which the Amazons are armed, wherever we see them represented. On a marble sarcophagus of the Louvre, at Paris, bearing the inscription SARCOPHAGE TROUVE A SALONIQUE EN MACEDOINE, the warriors wield axes with one edge and a pointed sharp back: but all the Amazons have such two-edged axes as the one here sketched. The Amazons are represented with such axes even in other places also; for instance, on some antique friezes in the British Museum. In a treatise on The Sword of Tiberius (in German, 4to, with coloured engravings), an Amazon is also represented with a similar axe. It is called Amazon Axe. Xenophon mentioned it in the Anabasis, iv, 4; and Horace speaks of Amazonia Securis in the Odes, iv, 4, 20.' *
>
> "The American homologue certainly had no other than sacred and ceremonial functions. It may not be amiss to suggest that possibly in prehistoric times examples of this type of implement were carried by some voyager across the intervening seas and that being regarded by the natives as possessed of supernatural attributes these were adopted as 'great medicine' spreading to many tribes and taking a wide range of form. It does not appear an entire impossibility that a stone or bronze perforated axe of this type left by one of the Ericsson ships should have been the ancestor of these peculiar objects. Who will venture to say that these greatly varied, beautifully finished and widely distributed objects may not have come into existence among the tribes during the 620 years separating the discovery of Vineland and the arrival of the pilgrims."

In the passage which I have just quoted from his forthcoming book, Dr. Holmes suggests that the bannerstones were derived from the European double axe, one of which may have been brought over

* Nilsson's Scandinavia, pp. 71–72 (The Primitive Inhabitants of Scandinavia, by Sven Nilsson).

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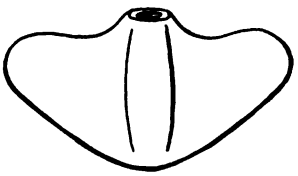

FIG. 81.—Bannerstone. New Jersey. University Museum, Philadelphia.

FIG. 82.—Bannerstone. Ontario. Archæological Report, 1911.

FIG. 83.—Bannerstone. New Jersey. Smithsonian Institution Report, 1896.

FIG. 84.—Bannerstone. District of Columbia. Handbook of American Indians, Part 1.

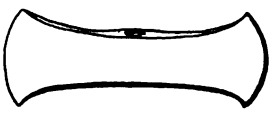

FIG. 85.—Bannerstone. Wisconsin. Smithsonian Institution Report, 1896.

FIG. 86.—Bannerstone. Ohio. Prehistoric America, Vol. I, Peet.

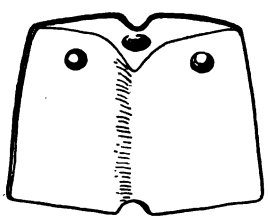

FIG. 87.—Bannerstone. Ontario. Archæological Report, 1911.

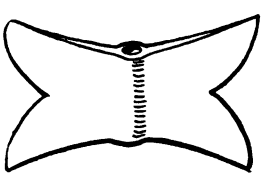

FIG. 88.—Bannerstone. Tennessee. Antiquities of Tennessee, Thurston.

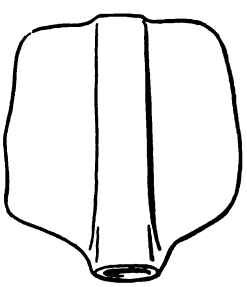

FIG. 89.—Bannerstone. New Jersey. University Museum, Philadelphia.

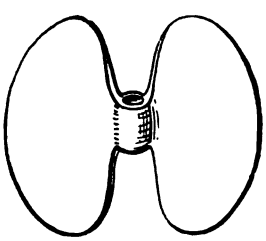

FIG. 90.—Bannerstone. Ohio. Prehistoric America, Vol. I, Peet.

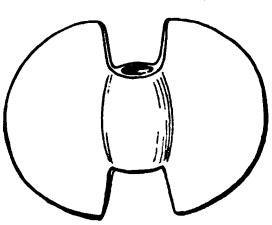

FIG. 91.—Bannerstone. Illinois. Handbook of American Indians, Part 1.

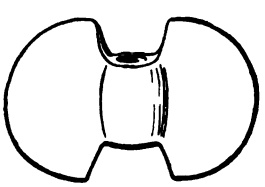

FIG. 92.—Bannerstone. Iowa. Smithsonian Institution Report, 1896.

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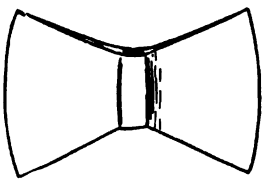

FIG. 93.—Bannerstone. Iowa. Handbook of American Indians, Part 1.

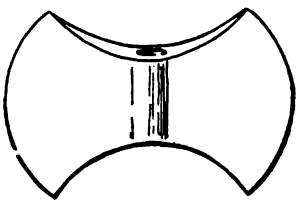

FIG. 94.—Bannerstone. Ohio. University Museum, Philadelphia.

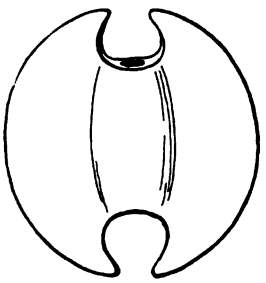

FIG. 95.—Bannerstone. Ohio. Handbook of American Indians, Part 1.

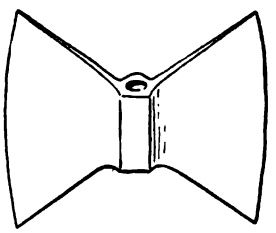

FIG. 96.—Bannerstone. Florida. Prehistoric America, Vol. I, Peet.

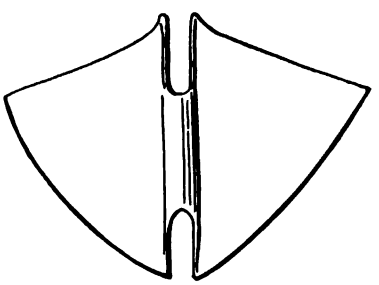

FIG. 97.—Bannerstone. Ohio. Stone Age in North America, Vol. 1, Moorehead.

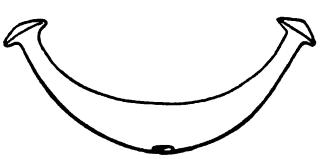

FIG. 98.—Bannerstone. West Virginia. United States National Museum.

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either by Ericsson or by some unknown voyager in prehistoric times, and afterwards copied by the Indians for their own uses. Dr. Holmes puts forward the general proposition that these objects may have come into existence among the Indians during the 620 years separating the discovery of Vineland and the arrival of the pilgrims.

In order to accept or reject such a view it is necessary either to support it by strong positive evidence or oppose it by strong negative evidence. That an object identical in form with some of the bannerstones existed in Europe on the shores of the Mediterranean and on the shores of the Baltic in times very much earlier than that of the Norse explorers is certain. On the other hand, there is no evidence at all that it was in use or even known in any part of Europe during the period between the discovery of Vineland and the arrival of the pilgrims.

In the Mediterranean area the double axe belongs in the Bronze Age and in Northern Europe it is confined to the Stone Age. It is not probable that Ericsson or any of his contemporaries would have brought to America an implement or symbol that was not in use in their time. On the other hand, there is evidence that the bannerstone existed in America at a very much earlier time than that of the Norse voyagers. Leaving aside their occurrence in Ohio, there is evidence that they were perfected at a very early period in the history of aboriginal culture in North America. An excavation made in New Jersey, brought to light a number of bannerstones *in situ* associated with argillite implements and other conditions that proved for them a relatively remote antiquity.*

According to this evidence at least two forms of bannerstone were produced in New Jersey, not 900 years ago, but several thousand years ago. If, therefore, the bannerstone of America was derived from the double axe of Europe, it was introduced at a very much earlier period than the period to which the earliest historic communications belong. What evidence is there that it was so derived?

The suggestion of Dr. Holmes rests on the undoubted fact that a large class of objects are found in America which, while presenting a wide divergence in form show a general resemblance to the European double axe and sometimes presents such a close approximation that it becomes identical and cannot be distinguished. The suggestion rests also upon the equally undoubted fact that the two classes of objects had a ceremonial use and a symbolic significance. In either

* See University Museum Anthropological Publications, Vol. VI, No. 3.

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case the meaning or set of ideas associated with the use of this symbolism remains unknown.

These circumstances though very interesting and instructive would need the support of substantial corroborative evidence in order to establish anything resembling a positive argument.

There has not yet appeared any such corroborative evidence. If any of the varying forms of bannerstone was derived from a European model it is not likely that the connection can ever be established. An identity even of such a highly specialized form coupled

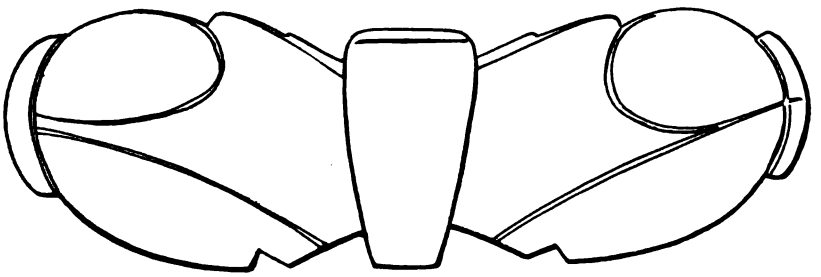

FIG. 99.—Ivory symbol of the whale's tail, from the Alaskan Eskimo. Museum collection.

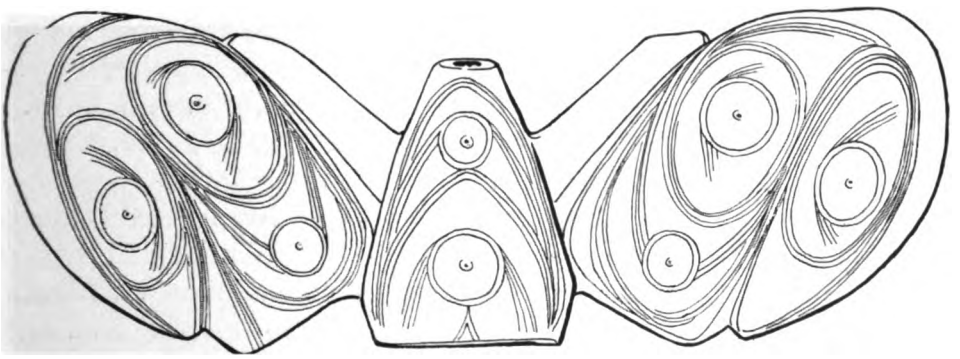

FIG. 100.—Ivory symbol of whale's tail, from the Alaskan Eskimo. Museum collection.

with entire conformity of function is not in itself trustworthy evidence of borrowing.

What evidence is there, on the other hand, for an independent native derivation for the class of objects known as bannerstones?

It has been shown that certain types of bannerstones were in use in America in very ancient times. It can also be shown that an object similar in form was in use within recent historic times and an object similar in form is in actual use down to the present time at one point on the continent. In both these instances the use of the object is purely ceremonial and symbolic. In each instance it

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is associated with rites which are evidently very ancient and the object itself in both instances is evidently one whose form and symbolic use have been handed down for many generations.

In that very valuable and excellent work by James P. Howley entitled "The Beothuck or Red Indians" may be seen opposite page 249 a reproduction of a drawing made by a woman of the Beothuk Indians and obtained from her in 1829. The Beothuks were the aboriginal inhabitants of Newfoundland and have been extinct for some time. In the drawing to which I refer is seen a series of six staves each surmounted by a symbolic device. One of these, we are told, represents the whale's tail. With reference to this object Howley has the following memorandum, referring to the notes of Carmack who first obtained the drawing from the Indian woman. "A note informs us that a whale was considered a great prize, this animal affording them a more abundant supply of food than anything else, *hence the Indians worshipped this image of the whale's tail.* (The italics are mine.) Another reference to this occurs among some stray notes of Carmack's as follows: 'The Bottle Nose Whale which they represented by its tail, frequents the Northern Bays . . . and the Red Indians consider it the greatest good luck to kill one. . . .' "

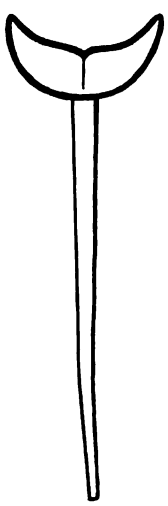

FIG. 101.—Emblem of the whale's tail. Beothuck or Red Indians, Newfoundland. James Howley.

This use of the whale's tail by the Red Indians of Newfoundland in the early nineteenth century has its counterpart among the Eskimo of Alaska about Bering Strait and the shores of Bering Sea, and on the Siberian shores of the Strait. The Eskimo have an elaborate ceremony connected with the whale hunt. In this ceremony they use an object which they declare represents the whale's tail and which plays a very important rôle in the ceremony. This symbolic device is made of ivory, either fossil or walrus ivory, and is often tastefully decorated. It has two wings and a pointed projection between the wings at the top. At the lower edge in the center it is partly perforated by a socket for the insertion of the staff on which it is carried. I am unable to explain the projecting point at the top which always has a deep incision at the end, but it certainly has something to do with the symbolism of the object.

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When I was in Alaska in 1905 I was able to obtain several examples of this object which are now in the Museum. I had no opportunity of seeing the ceremony, but from Mrs. Bernardi of Nome who had witnessed many Eskimo ceremonies I learned some of the facts about the ceremony connected with the whale hunt.

At that time and later I noticed that the whale's tail is a favorite device among the Alaskan Eskimo for carving on ivory or wooden implements and for tattooing on their persons and for charms.

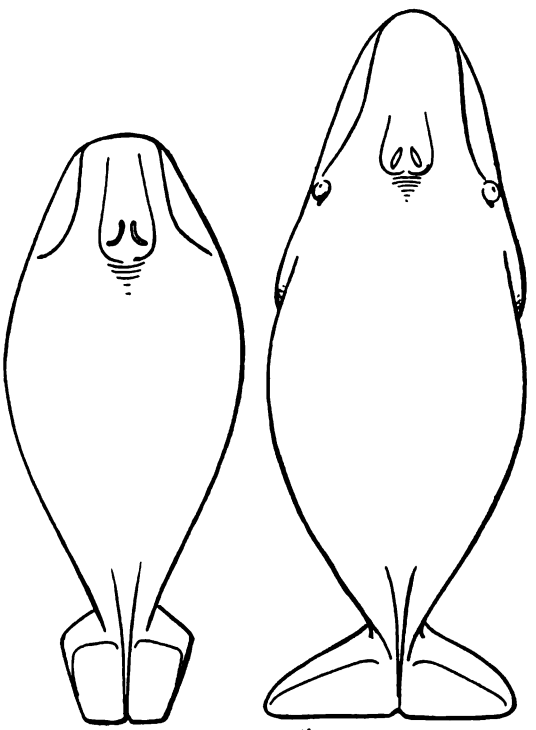

FIG. 102.—Alaskan Eskimo bones representing whales.

This use of the symbol which often at first sight appears to be for decoration has also a deeper religious significance.

Many emblems are used in the whale ceremony; that which represents the animal's tail takes two forms, this and this . They conform to the tails of whales in wood and in ivory which are used as boxes, playthings, or ornaments among the Eskimo. These two forms correspond closely to two characteristic forms of bannerstones. This form and this

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were found together in ceremonial deposits excavated in New Jersey.

The preponderance of the whale and especially of the whale's tail in the decorative art and symbolism of the Alaskan Eskimo

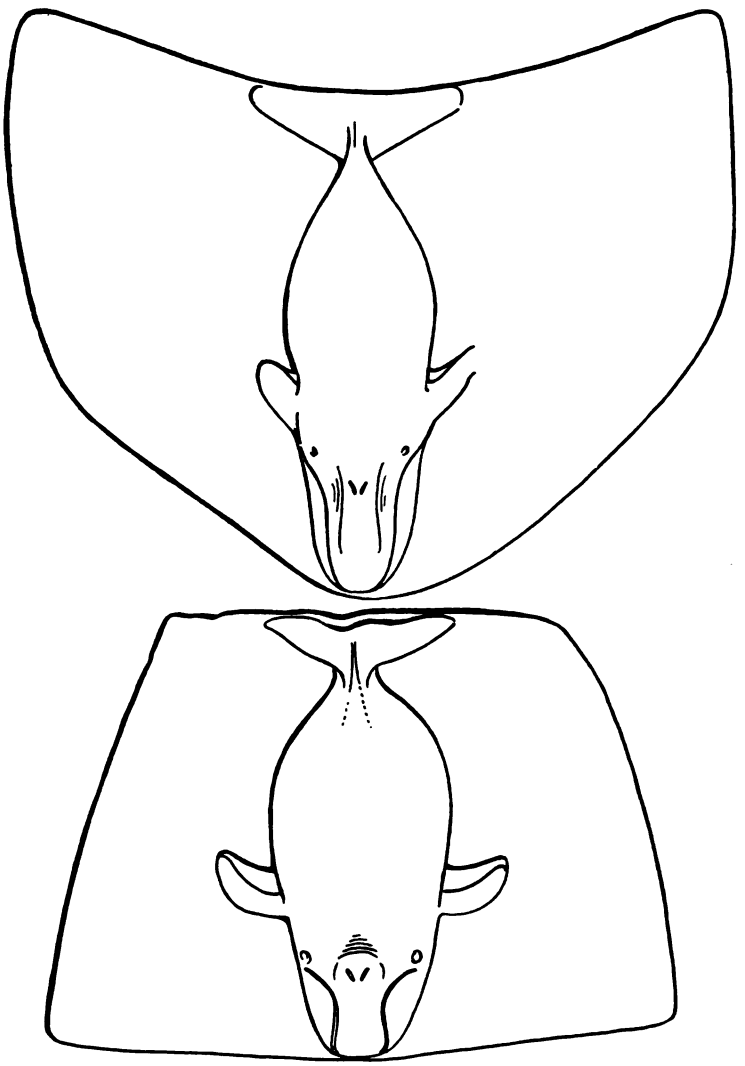

FIG. 103.—Symbols used in the Alaskan Eskimo whale ceremony. Specimens collected by W. B. Van Valin.

makes it appear as the most important symbolic device known to them. The set of ideas with which this symbol is associated is probably one of the most deeply rooted and powerful of their religious beliefs. The rites of this cult have been practiced for a long time.

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The whale's tail as a religious symbol is therefore found at the two remotest extremities of the North American continent, East and West; in Newfoundland on the one extremity and at the vicinity of Bering Strait at the other extremity. Between the two and covering a wide area are found the bannerstones. This area extends from Ontario to Florida and from Maine to Ohio. None have been found outside this area, and their occurrence grows more rare towards its western and southern margins. If such an object was in use at one

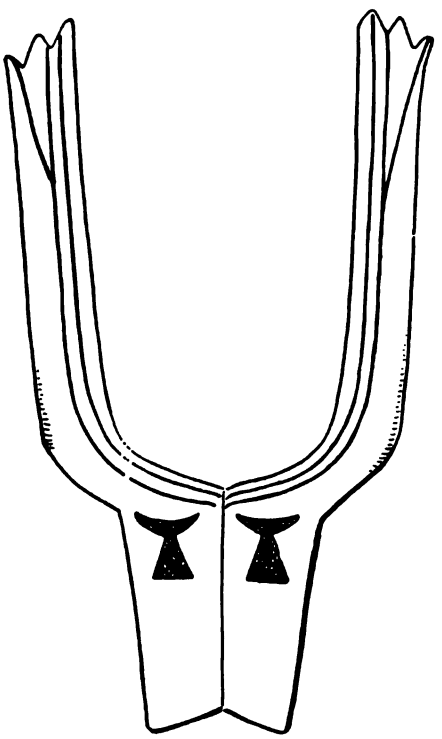

FIG. 104.—Eskimo ivory harpoon rest decorated with symbols of whale's tail.

time in the western part of the United States its evidence has been overlooked or lost.

A ceremonial object symbolizing the whale and associated with a cult of that animal could come into existence only among a people living near the sea. It would naturally not penetrate to the far interior of a large continental area where the animal could not be known and where its symbolism would not be understood. The bannerstone has its greatest development on the eastern seaboard of

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the United States and it gradually disappears as one recedes from the coast westward. Its distribution is therefore in keeping with the idea of origin among a coast people. The reappearance of a surviving symbol of similar form at the other extremity of the continent, taken in connection with the historic evidence furnished by Newfoundland, indicates a wide knowledge and use of the same symbolism among the people of the continent dwelling on the coasts of the seas frequented by certain species of whale which are known to have been hunted and used as food from Newfoundland and Labrador to Alaska.

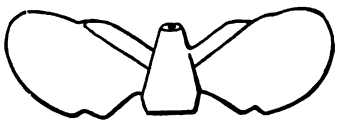

FIG. 105.—Outline of Alaskan symbol of the whale's tail. Museum collection.

Summing up the whole subject, it will be best to distinguish between different types of bannerstones.

1. The one with upward turning wings, monoplane type characteristic of the eastern area, especially the littoral of New Jersey and Pennsylvania. This form is found eastward to Maine.

2. A tapering form found in the same area as No. 1 and in close association with it and found also extending westward and southward.

3. The double axe form characteristic of Ohio, Michigan and Wisconsin. This form extends down into Georgia, Florida and Louisiana. In the southern region all forms are rare.

4. The butterfly form found in Ontario, Ohio and the western and southern fringe generally of the bannerstone area.

5. The yoke form characteristic of the Ohio region.

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Besides these five forms there are seen in most collections a variety of shapes that are classed as bannerstones. These variants and erratic forms increase as one goes westward and southward and are found chiefly in the western fringe of the bannerstone area.

The meaning of this distribution of forms is either that the different types are unrelated objects derived independently from different origins and representing different ideas or else they represent the variable forms which the same symbol took, on its migration westward from the east Atlantic seaboard. The evidence at hand seems to point to the latter view. That is to say, a symbol which retained its proper form and significance in the place of its origin where its meaning was plain, was naturally subject to many local

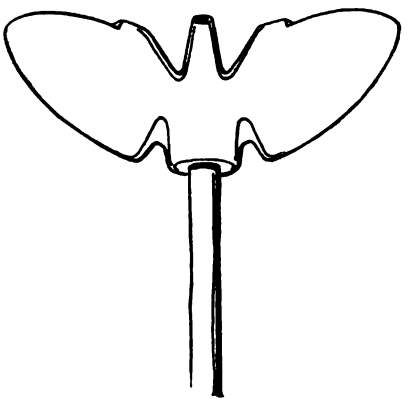

FIG. 106.—Alaskan whale's tail symbol with staff inserted.

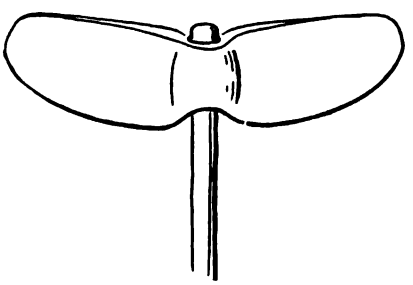

FIG. 107.—Pennsylvania bannerstone with hypothetic staff inserted.

influences as it passed into regions where it was not well understood, and being subject to varying interpretations, took on many different forms.

Although one form of object usually classed with the bannerstone and closely resembling the double axe of Europe may possibly have been introduced into America from Europe at an early period as suggested by Doctor Holmes, there is strong evidence in favor of a native origin for the bannerstone that is characteristic of New England and the North Atlantic States, and also of a second form which is sometimes found associated with this most characteristic one. These two forms closely resemble two forms of symbol that are still used among the Eskimo of Alaska for ceremonial purposes. The first, the most prominent and characteristic of these two forms,

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shows a close correspondence to a form of symbol used as late as the nineteenth century by the Beothuk or Red Indians of Newfoundland.

That the possibility of a foreign origin for various elements of Indian culture is a reasonable assumption cannot be denied, but it would seem that whatever aspect of this culture we choose to study, we are likely to be led in our inquiries to purely American sources. For the bannerstone as for all native ideas, a native origin seems to be the most plausible, and it is by pursuing our researches on the American continent itself that we are most likely to find the explanation of ancient American symbols.

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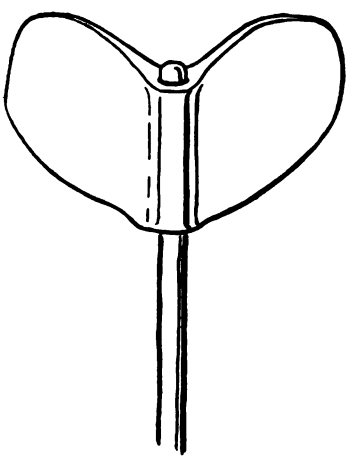

FIG. 108.—New Jersey bannerstone with hypothetic staff inserted.

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NOTES

During the month of January important additions were made to the Chinese collection by the purchase of several stone statues of the T'ang Dynasty representing the best work of the Chinese sculptor. During February two stone pedestals were acquired. These pedestals formerly supported Buddhist statues. One exhibits on its four sides incised decorations representing the life of Buddha. This pedestal is undated, but is believed to be of the T'ang Dynasty. The other pedestal is covered on its four sides with low relief and bears a date of the Wei Dynasty, corresponding to 524 A. D.

A collection of thirty Chinese paintings dating from a period extending from the T'ang to the Ming Dynasty, has been purchased from Dr. John C. Ferguson.

Three Chinese jade sceptres have been acquired by purchase.

In the Section of General Ethnology the following objects have been acquired.

One Tibetan mounted skull cup.

A Maori carved wooden box.

One large throne mat measuring 15 by 5 feet from the house of a chief of one of the tribes of Mindanao. This specimen is elaborately decorated by designs burnt on the surface of the mat.

One piece of tapa cloth from Fiji measuring 32 by 12 feet.

One suit of Moro armor made of buffalo horn and brass links.

Seven Philippine shields of the Bilaan and Moro tribes.

Three cases of ethnological specimens have been received from Messrs. Probst and Wight, who are engaged in collecting for the University Museum among the Kikuyu and other tribes of British East Africa.

Mr. H. U. Hall, who represented the University Museum on the Siberian Expedition sent out by the University Museum of Oxford and the University Museum of Philadelphia, returned in February from Siberia by way of Petrograd and London. Collections,

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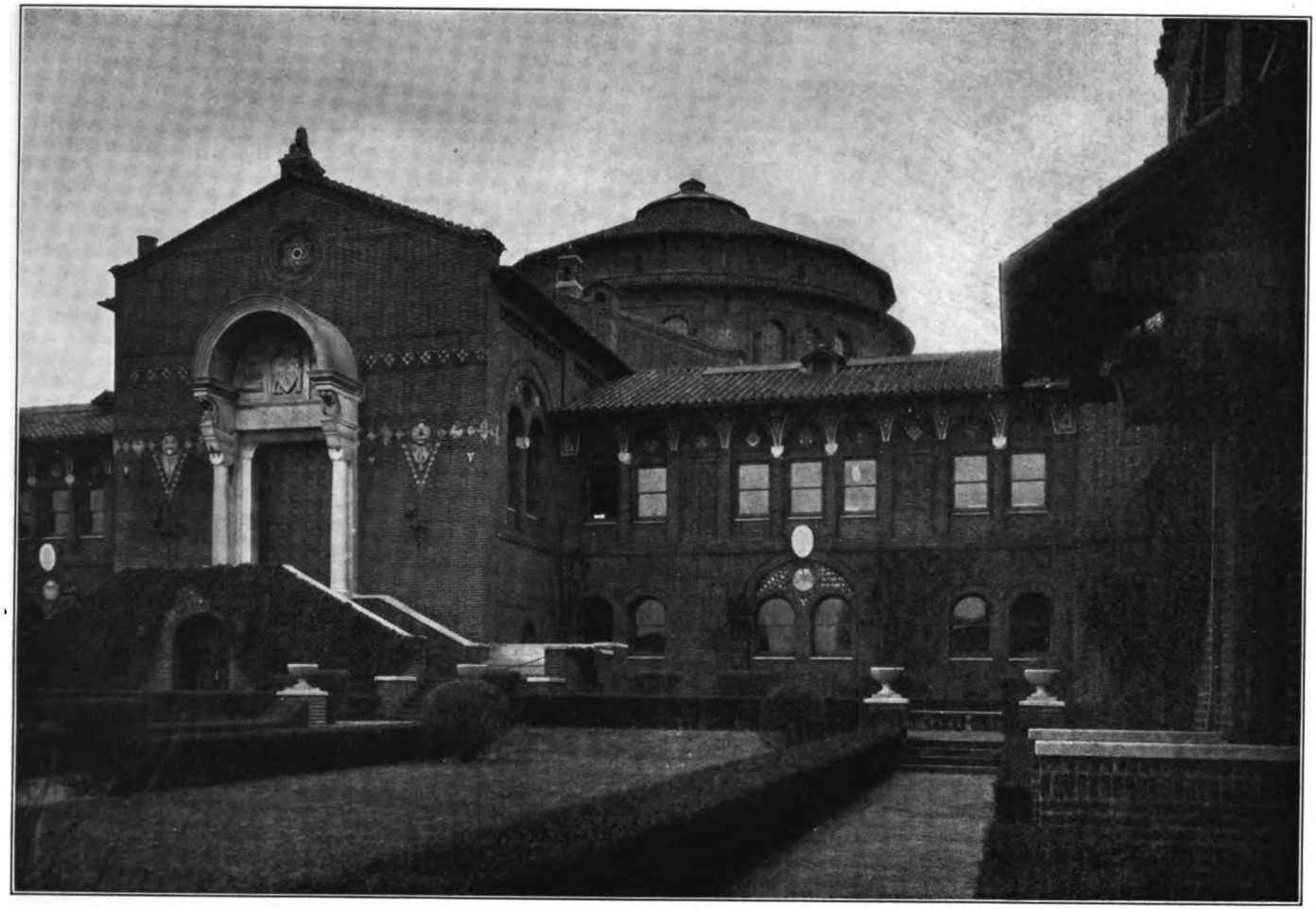

FIG. 109.—View in Museum courtyard.

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photographs and notes made by the expedition were all brought through safely and the part of these collections belonging to this Museum has arrived.

A letter has been received from Mr. C. W. Bishop dated at Chengtu in the Province of Sze-chuan in China. Mr. Bishop reports considerable disturbance in that region on the part of revolutionists, but has been able to continue his work for the Museum even in remote parts.

Letters received from Mr. Clarence S. Fisher in charge of the Eckley B. Coxe, Jr., Expedition to Egypt, gives news of important results which this expedition has obtained through excavations in the cemetery at Dendereh. The tombs in this cemetery have yielded many objects of historic and artistic value dating from the Early Dynastic to the Ptolemaic Period.

An interesting acquisition made by the American Section is a painted buffalo robe presented by Mrs. Harry Waln Harrison. This robe has been in Mrs. Harrison's family for many years. It is perfectly preserved and exhibits symbolism characteristic of the Ojibways. This robe will be published in another number of the JOURNAL.

On the evening of January 24th there was exhibited to an audience of about 1,200, a motion picture entitled The Cruise of the King and Winge. This film showed a voyage in the Arctic region and the rescue of a part of Stefansson's crew.

On February 12th the President and Board of Managers held a reception at the Museum on the occasion of the opening of the Exhibition of Oriental Art in The Charles Custis Harrison Hall. Although the evening was a very stormy one, a large number of guests were present and the occasion proved to be a brilliant one. In addition to the regular exhibition, the Museum was able to exhibit on the floors on that evening a number of Chinese and Persian rugs and carpets of great beauty and rarity.

An exhibition of new accessions has been arranged in the old lecture room. In this exhibition are shown the collection from the Copper Eskimo of Coronation Gulf and Victoria Land recently

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acquired through Mr. John Wanamaker; the Siberian Collection obtained from the tribes between the Yenisei and the Lena by the Siberian Expedition; some of the Conebo pottery obtained by the Amazon Expedition; the objects excavated near Moorestown, New Jersey, last summer; together with a number of ethnological specimens recently purchased.

The following members were elected at the meetings of the Board of Managers held on January 21st, February 18th and March 17th.

Fellow for Life: Mrs. Eckley Brinton Coxe.

Fellowship Member: Mrs. George M. Conarroe.

Sustaining Members: Mrs. John Fritsche, Charles C. Harrison, Jr., Henry A. Laughlin, George McFadden, Mrs. Grahame Wood, Dr. S. Lewis Ziegler.

Annual Members: William S. Acuff, Mrs. Robert Alexander, Mrs. Elizabeth Apel, Mrs. Frank Battles, James W. Bayard, Mrs. T. Broom Belfield, Mrs. William P. Bement, Miss Christine W. Biddle, Craig Biddle, Miss Julia H. Binney, William Bradway, Mrs. Joseph H. Brazier, Miss E. Josephine Brazier, J. Spencer Brock, John H. Bromley, James Crosby Brown, Edward H. Burr, O. H. Burritt, Miss Florence F. Caldwell, Mrs. Mason Campbell, Samuel J. Castner, Mrs. B. Frank Clapp, William M. Clift, Charles J. Cohen, Miss Fanny B. Coleman, Mrs. Edward Coles, G. Hamilton Colket, Miss Mary W. Colket, Mrs. John W. Converse, Mrs. Morris L. Cooke, Walter S. Cramp, Charles T. Creswell, J. H. R. Cromwell, Mrs. John G. Croxton, Howard J. Dager, Mrs. Samuel Eckert, Miss Henrietta B. Ely, James W. Fletcher, H. H. Fritz, John Getz, Mrs. Thomas H. Griest, Mrs. George L. Harrison, Jr., Miss Marion L. Harvey, George Gowen Hood, Philip E. Howard, Mrs. George K. Johnson, Miss Augusta Justi, Theodore Justice, Albert Kelsey, Jr., Miss Julia Ludwig, Thomas McKean, Emory McMichael, Mrs. Emory McMichael, Mrs. E. C. Madeira, Hon. J. Willis Martin, Mrs. Paul Denckla Mills, Miss Josephine T. Monges, John Moss, Jr., Mrs. John M. Oakley, Mrs. Louis Barclay Robinson, Mrs. Thomas Scattergood, Samuel Scoville, Mrs. E. O. Shakespeare, Mrs. Edward B. Smith, S. P. Wetherill, Carroll R. Williams.

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Rice fields are characteristic of the Chinese Province of Szech'uan.

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THE
MUSEUM JOURNAL

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THE UNIVERSITY MUSEUM

AN APPEAL

AT this moment of its highest achievement and most marked success, which happily corresponds to a time of extraordinary prosperity for Philadelphia and for the country, the University Museum has, in the circumstances, a special sanction for an appeal to the public.

It is necessary and right at such a time to call attention to the work that this Museum has been quietly doing, to state its needs and to put forward its claims. Its performance is of a kind which has been recognized in every great city as necessary for the education of the public. In Philadelphia this recognition is not yet so complete as in some other great cities, but the very remarkable increase of public interest in the University Museum during the last year gives ground for the belief that Philadelphia is prepared to play a leading part in this wholesome and universal movement for culture and in promoting the ideal of liberal education.

The structure which is known as the University Museum and which stands at the corner of Thirty-third and Spruce Streets, represents about one-fifth of the building which has been planned for construction on that site. To complete this building will require a sum of three and a half million dollars. The collections which have been obtained at great expense and which are of great value, cannot be adequately shown or properly cared for until the exhibition halls, storerooms and laboratories are increased. This need

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is a very urgent one and one that must be met in the near future if the Museum is to continue its useful work.

The need for developing the collections in all departments of the Museum, without intermission, is fundamental; for such an institution could not long survive a partial paralysis of its proper functions. To relax the efforts towards increasing the collections along the lines already defined would have an effect so reactionary that the good work already accomplished would be rendered all but worthless. At the present moment an effort is being made to raise $300,000 for the immediate purchase of collections and works of art which the proper development of the Museum requires and which have been selected with a great deal of care.

For the proper maintenance of the Museum, including the heating and lighting of the building, the salaries of the people in charge of the collections, the cost of installing the exhibitions and their protection, there is required a sum of $100,000 annually. The interest from endowment at the present time amounts to only $14,000 and the income from membership fees amounts to $5,000. The sum of $10,000 will be received for one year from the University of Pennsylvania out of its appropriation from the State. These sums are available towards the cost of maintenance. The remainder of the funds has to be provided each year from private contributions. At the present time, therefore, an endowment fund of $2,000,000 is an urgent necessity.

During the year 1915, the sum of $175,000 was spent for maintaining expeditions in the field and purchasing collections. Every cent of this money proceeded from private contributions.

How You Can Share in the Work of the Museum

There are a great many people in Philadelphia who can help this public work. The persons who have heretofore contributed have been most generous, but the burden is becoming too heavy for a small number of contributors to bear. It is now necessary to appeal to a larger number of people and to a wider range of interests in order to take the next forward step and secure the Museum in its useful work for the future.

In order to afford a large number of people an opportunity of participating in this necessary work for the public good, and in order to reciprocate by giving special privileges and benefits to all

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who join in this agreeable plan of coöperation, the following classes of membership have been created and a person holding any one of these memberships is entitled to the privileges which are explained below.

Fellows for Life, who contribute	$1,000
Fellowship Members, who pay an annual contribution of	$100
Sustaining Members, who pay an annual contribution of	$25
Annual Members, who pay an annual contribution of	$10

All classes of members receive tickets which entitle them to reserved seats at the courses of lectures given for members at the Museum, and invitations to all receptions given to members.

Annual Members receive also the MUSEUM JOURNAL and copies of all guides and handbooks, and free use of the library and reading room.

Annual Members receive in addition, an extra ticket entitling the holder to a reserved seat at each of the lectures.

Sustaining Members receive in addition to the general privileges, copies of all publications issued by the Museum, and two extra tickets entitling the holders to reserved seats at the lectures.

Fellowship Members receive in addition to the general privileges, copies of all publications issued by the Museum and five extra tickets entitling the holders to reserved seats at the lectures.

The fees received from Annual Members, Sustaining Members and Fellowship Members are put into the fund for current expenses. The fees received from Fellowships for Life are turned into the Endowment Fund.

None of these moneys are available for expeditions or collections, which have to be provided for by special funds contributed for these purposes.

Any one who shall have contributed or devised money or property amounting to $100,000 to the Museum for any purpose may be elected a Benefactor.

Any one who shall have contributed or devised money or property amounting to $50,000 may be elected a Patron.

An expedition sent to any part of the world to make explorations or to assemble collections costs from $5,000 a year to $15,000 a year. Many of the expeditions that are now in the field and that have heretofore been in the field, have been equipped and supported by single individuals. This is a particularly agreeable way for

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anyone with a taste for exploration to participate in the work that the Museum is doing for the promotion of knowledge and for the public welfare.

Philadelphia must not be content with second place in the things that make for culture. The University Museum has already prepared the way. It now holds out to all intelligent and loyal citizens a brilliant opportunity to serve the City by giving it a really great museum.

If you find that the subject of these lines lies within the scope of your sympathies, the following pages will not be without interest for you. When you have read them at your leisure and made up your mind how you can, with most satisfaction to yourself, take an active part in the realization of the brilliant prospect here set forth, we hope that you will feel persuaded to pay a visit to the Museum and see it for yourself if you have not already done so. If you are satisfied and would like to participate in the work, make your wishes known either in person or by a letter.

What the University Museum is Doing

Your attention is especially invited to what the University Museum has already accomplished and to the fact that it is not an experiment, but an institution which has already proved its practical usefulness. The first fact to be noticed is that the Museum owns twelve acres of ground and that the building which has been designed and partly erected on that site is one which has already attracted attention as one of the City's architectural ornaments. The newest portion of this building, which was opened in February of this year, consists of an auditorium and a large exhibition hall, both of which have been since that time used with great advantage by the public.

This building has cost about $600,000, all of which has been paid. The collections which are housed in it have been obtained either through purchase or by our own expeditions which have excavated in Babylonia, in Egypt, in Greece, in Italy, in China, and in Peru, and by expeditions which have worked in almost every country in the world. There are also many collections of great value which have been given by their former owners or left by will to the Museum for the benefit of the public. The intrinsic value of these collections is estimated at $1,000,000, while their educational

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value is incalculable. There is no debt of any kind on the building or on the collections, which are entirely free on the 365 days of the year. During last year more than 100,000 visitors enjoyed the exhibitions and during last winter 5,000 school children with their teachers listened to illustrated talks and saw motion picture exhibitions in the auditorium. A similar number of school children with their teachers were personally conducted through the exhibitions and had these explained to them by the Curators and their assistants.

A course of sixteen lectures was given for the benefit of members during the same season. These lectures were delivered by well-known travelers and explorers and by eminent specialists, both American and European. On each occasion the auditorium was filled, and the entire number of people who listened to these lectures during the winter of 1915–16 was in excess of 16,000.

Besides these regular lectures, classes met in the Museum for the study of special branches of art. These classes were free and voluntary and received instruction by regularly appointed teachers. Students and others interested in the collections are constantly being shown through the exhibition halls individually or in small groups by the Curators and by their assistants.

The Antiquity of Man

To illustrate one of the ways in which these excursions in the Museum serve to stimulate the imagination and provoke thought, look for a moment at four objects selected at random. There is a fragment of a marble statue of a Greek boy made by an unknown artist about 400 years before our era. That is a very respectable antiquity, an antiquity to which we are accustomed to look back with pride and almost with reverence as to our own origins; but our inheritance goes back much farther than that. In another case you may see a stone lamp that lighted somebody's house in Crete about 2,000 years before the beginning of the Christian era. In a case near by is to be seen a wooden tablet dug out of a tomb in Egypt. Upon it are engraved crude hieroglyphics which give the name of the occupant of that tomb and tell what a very great man he was—4,000 years before Christ. There is no doubt that this antique Egyptian *was* a great man, but it is not known that he was any greater than the nameless one who made a certain flint axe which lies in still another case in the Museum. This rudely fashioned

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implement was found in the banks of the river Seine and its age carries one so far back in the earth's history that at the time when it was made Western Europe had an Arctic climate. In the Britain and France of that time the beaches were battered with icebergs and the North Sea was strewn with the floe. This was the natural state of Europe when a progressive savage made that rude weapon of stone to hunt the hairy mammoth on the site of Paris 100,000 years ago.

Compared to this ancient hunter, the famous Egyptian who lived 4,000 years before Christ, flourished quite recently; the stone lamp that was new in Crete 2,000 years later is a modern invention, and as for the Greek boy who was the model for that beautiful fragment of stone, he would seem by comparison to be a contemporary of ourselves. It is a very long stretch of time that unfolds itself to the imagination as you pass from case to case or from hall to hall in this Museum, and one of the lessons that these exhibits teach is that this process of time corresponds to very extraordinary changes in the condition of the earth and especially in the state of man. These are among the fundamental facts of modern knowledge and they are facts that every cultivated person should know. To know this past is to know something of ourselves, not to know it is to be in ignorance of ourselves.

The University Museum Helps the Applied Arts and Benefits Local Industries

In the variety of its uses the University Museum has also a very practical side. In a manufacturing center like Philadelphia where the modern industrial arts are in a state of active development, the factories stand in need of models such as the Museum affords. In the manufacture of textiles, rugs, pottery and the useful and the decorative arts generally, a correct appreciation of art values and a knowledge of the way to arrive at them can be had only by the study of collections which, like those in the University Museum, illustrate the history of decoration and the evolution of design.

Many manufacturing concerns deeply interested in the tendencies of public taste and intelligently aware of the importance of correct standards, find in the exhibitions at the University Museum, trustworthy guidance and a source of profitable information. By having

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recourse to this guidance they are enabled to produce articles that are true to type and that represent the highest expression of art value in modern manufactures.

The Lesson of London: A Great Museum in War Time

In January of the present year the British Government, among other measures designed to save money for the prosecution of the war, took steps to close the museums of London. The effect produced upon the country by this proposed economy found expression in a formal protest made by a number of responsible men well known in public life—men whose names would carry weight throughout the world in matters of art, of science and of letters.

These experienced and thoughtful representatives of the cause of national education, though loyal to the government and fully alive to the supreme need of the hour, placed themselves on record in a manner that shows that they viewed the closing of the museums as a measure not to be contemplated even by a government that is facing an economic situation that fills the financial world with dismay.

Lord Bryce and his distinguished associates, in a clear-cut statement which was laid before the government for consideration, showed that the museums of London are performing a service in relation to public education and to the national welfare so important that the country could not afford to have them closed even at a time when it is supporting the burden of war and paying the ruinous price which victory entails.

This serious statement, coming from responsible men of affairs working in sympathy with the government and close to the councils of the nation, affords a striking proof of the importance that is attached to museums in a country that is taking stock of all its resources and subjecting its possessions, material and moral, to a rigorous test.

Of all the lessons which the people of America can draw from the great war, none is of greater importance than this: that the European nations, regardless of the heavy sacrifices which have fallen to their lot, are unwilling in their enforced economies, to save money by blocking up the sources of liberal culture and pure enjoyment through suspending the work of the museums. The experience of Great Britain with reference to museums in war time is the

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same as that of the other European countries that are engaged in the conflict. The Louvre, which closed when the invading armies came close to Paris, is opening up its galleries again; and in Berlin, not only are all the public collections kept fully up to normal conditions, but a new museum is actually in course of construction. This is a very striking array of facts. It presents a sharp contrast to the hasty judgment of the uninformed, and of all who hold that museums are mere luxuries. It represents an acknowledgment, moreover, that is quite in keeping with American ideas, for in this country too, museums have come to be looked upon as necessary instruments of education. An instrument that has been found of such value in time of war and in time of peace is one that calls for special and hopeful recognition at the present moment of our history.

America is today prosperous to an unparalleled extent, and this prosperity is shared by all classes alike. The daily press, the trade journals, the reports of corporations and government returns, show an accumulation of wealth by the people of this country that surpasses anything of the kind in history. The share of this wealth that comes to Philadelphia is a very large one. If London can afford its museums today, Philadelphia can afford a much greater one than it has. Its great opportunity lies in the University Museum, an aggressive institution that has laid its foundations on an ample scale, that has already made its name known throughout the world and that bears the same relation to this City that the British Museum bears to London.

A Tale of Two Museums

The British Museum was founded in 1753 and its history reads like a romance. Its influence today reaches far beyond the United Kingdom. The greatest and the smallest parts of the Empire feel a just pride in it, and, embodying as it does ideas which they share alike, it has come to be a mould of their Imperial sentiment and an emblem of their faith.

Recently it was pointed out in Parliament that the British Museum is doing a very great work at this critical period in the world's history. It was said that the refugees that crowd the city, the soldiers home on leave or convalescent from hospital all go to the British Museum for recreation. From Australia, New Zealand,

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South Africa, Canada, India, from all over the map, the men in khaki come together under that roof among the treasures of antiquity and the collections gathered from all the earth. There the nations meet, as people meet upon a holiday, and from that center, even in the tumult of war, a great civilizing and humanizing influence is going out over the whole world.

A few years after the founding of the British Museum, to be exact, in 1785, the first museum in America was founded. Its history has been written and that too makes interesting reading. This was the Peale Museum, founded by Charles Willson Peale and situated at Third and Lombard Streets in Philadelphia. It was the intention of Peale and his associates to lay the foundation of a great National Museum, and their successful efforts to assemble collections worthy of their high ambition afford striking proof of the industry and forethought as well as the liberal intelligence that distinguished the founders of the Republic.

In 1792 Thomas Jefferson was elected President of the Peale Museum, and upon the Board of Managers were such men as Alexander Hamilton, James Madison, Thomas Mifflin, Robert Morris, David Rittenhouse and Dr. Caspar Wistar. At the head of the list of subscribers in 1794 stands the name of George Washington, followed by the names of John Adams and James Monroe. It is a curious fact that none of the collections that were gathered into the Peale Museum are now in Philadelphia. If you would see them you must go to New York and Boston.

What a fine thing it would have been if the Peale Museum, starting as it did so soon after the British Museum, had been given a permanent home in this City and if the far-sighted plan of its founders had been realized by the building up of great national collections on this historic ground. There is no city in the country so well situated and none so well fitted as Philadelphia to be the home of such collections. Two things are essential for the existence of a great museum. It must be in a community where wealth and culture are combined with liberal ideas, and it must be in the center of a large population. Both these conditions are satisfied here better than anywhere else in the country. The City has not taken advantage of this situation and in the meantime other cities have acquired great museums. The Metropolitan was founded in 1869, the Boston Museum in 1870, and the Field Museum of Chicago in 1894. Philadelphia, it is true, has

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today several museums, each of which is doing its own work along its chosen lines, but the City does not possess a great museum in the sense that other cities have great museums, nor does it possess public collections that are worthy of its place in history.

What Museums in America are Doing

Reference has been made to the uses of a great museum in time of war and its civilizing influence. That civilizing influence is needed also in time of peace and it is needed in America quite as much as in Europe or in any other country. If America is today becoming the richest and most powerful nation of the world, we will do well while we talk of preparation for war to see to it that all the wealth and all the power shall not be converted into instruments of destruction, and that a just proportion goes to the things that make for a higher culture and a more sane and happy condition of life.

The Commissioner of Education in his Annual Report for 1913 stated that there are in the United States 600 museums. The statement needs the extensive qualification which makes up the body of the chapter that is devoted to the subject, for out of the whole number not more than fifty of these so-called museums are active at all, and only about half of these are doing any really useful work. In that report a large group of museums, namely, thirty-eight per cent, are classed as college or university museums administered under the auspices of colleges or universities. The following passages from the report will serve to indicate the position which they occupy. "Although a few museums under control of colleges or universities . . . have endowments sufficient to ensure their maintenance, the great majority are inactive and deteriorating. . . . They are less valued in college institutions today than they were in the first half of last century and rarely receive adequate support unless aided by endowment. Their condition is seldom satisfactory and often pitiable."

It is pointed out by the Commissioner that the experience of this large class of museums, and the unfortunate condition in which they find themselves, show very clearly that owing to the great cost and to other circumstances, the work of a museum cannot be successfully carried on by a college or university. The few excep-

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tions are cases where very special conditions give the museum an independent existence.

One of these exceptions is the University Museum of Philadelphia which has been spared the fate of so many other university museums as analyzed in the Commissioner's report, by the wisdom of the University Trustees in creating for its government a separate organization. This consists of a Board of Managers made up of sixteen elective members and four members of the Board of Trustees of the University. The Board of Managers controls the work of the Museum, coöperates with the University, affords facilities for the use of the collections by students and instructors and relieves the University of all responsibility for the support and for the administrative and executive work of the Museum. In this way the University Museum has been able to undertake and carry to successful conclusion a number of important expeditions, to acquire valuable collections, to enlarge its building and to develop liberal plans for increasing its usefulness in the community.

To quote again from the Commissioner's report, we find that fifteen per cent of the museums in the country are maintained by municipal or state appropriations and that these "are growing in numbers, size and usefulness and are receiving increasing appropriations of public moneys and contributions from private sources." They are "the most active and progressive museums of the present time, because the continuance of appropriations is contingent upon work of such broad scope and practical nature as to maintain the interest and approval of the general public. . . . The introduction of the educational function into museums is the keynote of their phenomenal development during the last quarter of a century. They are now democratic in the highest sense, responsible directly to the people and developing in proportion as they satisfy the needs of the public."

As a matter of fact, the four or five really great museums of the country are museums which receive municipal support in the shape of annual appropriations equal to their needs. By comparing the University Museum with this class it will be seen that while it is doing a similar work, its resources are totally different. It receives no funds from the City, and is supported entirely by private endowment and by contributions from citizens. In short, this Museum belongs neither to one class nor to the other, but occupies a unique position among the museums of America. At the same

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time it has, during recent years, taken a more and more prominent place among the museums of the first class and is doing a work similar to that which the great Municipal museums are doing in New York, Boston and Chicago.

The Scope of the University Museum

In the division of its interests, as well as in its sources of revenue, the University Museum occupies a different position from all the other American museums. It excludes, on the one hand, the mineral world, the plant life, and all the animals lower than man, and on the other hand, it leaves out all the productions of contemporary art and modern industry. It is a Museum of the Arts, and its business is to illustrate scientifically and from the historical point of view, not only the fine arts which furnish the sphere of the artist but also the useful arts, which engage the ingenuity of the artisan and employ the skill of the craftsman.

Apart from the great library in Bloomsbury, the scope of the University Museum is almost identical with that of the British Museum, an identity of interest that befits the legitimate successor of the Peale Museum. In such a museum the collections belong to the past rather than to the present and many of them derive their origin from a very remote antiquity.

The sources whence the treasures may be derived, the mines that yield the ore, lie far afield and in order to gain these sources and work these mines it is necessary to send out expeditions into widely separated parts of the world, either to explore ruined cities or to invoke the aid of the heathen artist and the heathen craftsman; for the humble savage folk have their message to give and their contribution to make to the history of civilization as well as ancient Egypt or Babylon or Greece or Rome. Indeed the so-called savage tribes are themselves a part of antiquity, preserving a very ancient heritage of the race; and when they have made their contribution they too must pass away. In order to throw out lines of communication, so to speak, with these contributors, living and dead, the University Museum has sent its expeditions all over the world.

These expeditions by opening up buried places or by cultivating friendly relations with savage tribes, have sought man's handiwork in all ages and in all places; they have assembled the work

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of the potter, the smith, the weaver, the skin-dresser, the equipment of the warrior, the tools and utensils of industry and of domestic use, articles of personal adornment, the work of the painter and the work of the sculptor. These collections, the products of the arts in every stage of perfection, are the raw materials out of which the Museum is enabled to construct its educational exhibits. In the laboratory of the Museum all these disconnected facts fall into line and become articulate and weave themselves into an orderly pattern in which all may read the message of the past and behold the wonders that have been wrought through the ages.

No object, however humble, is without significance in this reconstruction of the past. The crudest and the meanest things may have their uses here. The Parthenon would not be inspiring if men had always built like that. The printing press would fail to stir the emotions did we not see in the distance the half dressed hide on which the savage traced the legends of his tribe. The Truths of Christianity, the Offices of the Church, the very Symbols of our Faith are the more vital and momentous for being seen in their proper relations to other and earlier beliefs and to the emblems of other faiths that were in the world since the dawn of man.

From what has been said it will be seen that the scope of the University Museum is not only one that permits of great concentration of effort but one that is broad enough to engage the concerted effort of all the liberal-minded spirits of Philadelphia for an indefinite period. That it is worthy of such a concerted effort, everyone must agree. With the support which is confidently looked for there is no reason why there should not be fully and admirably realized in this City a great Museum of the Arts similar to the British Museum. In such an event Philadelphia would take the place which belongs to it by virtue of its venerable traditions, and become once more and for all time the center of a higher culture and of a finer civic life on this Western Continent.

The Aims of the University Museum

To put the whole matter briefly, in its well-defined scope the University Museum aims to include the life history of the human race and to bridge the gap that separates man in his most primitive condition from the same being in the pride of his highest attainment. Its scope is man's achievement; its object to illustrate and

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explain the evolution of human culture. In more specific terms, its purpose is to preserve and hand down to posterity a visible record of man's history that will tell by means of his handiwork the story of his career on earth. The characters in which this wonderful story will be written are, therefore, the actual devices by which man has marked his pathway through the ages towards the unseen goal of his desire.

On the one hand will be seen the things that were fashioned by the houseless men of Europe when the mammoth and the musk ox were replacing the elephant and the hippopotamus on the ice-bound banks of the Seine, and on the other hand, revealed in sculptured stone and hammered bronze, will appear the wisdom of Babylon, the might of Egypt, the glory that was Greece and the grandeur that was Rome.

The idea which is presented in merest outline in these pages includes, therefore, in one comprehensive plan, the whole scheme of human culture in its essential attributes and in its progressive development. By the exhibition of well-selected examples of the art of all peoples and all times, the Museum will show the universal artist in his unending search for truth and beauty, and following him from age to age and from land to land we may be helped to see the conditions under which these elusive qualities are to be found. Above all, by bringing into strong relief the ingenuity of the mind expressed by the cunning of the hand, it will reveal the nobility of labor and proclaim the triumph of the craftsman.

This at all events is the ideal towards which we can with most advantage bend our energies. By keeping that ideal before us, even if we fail to realize it, we will accomplish more than if we kept in view a lesser purpose, which might be the measure of our ability though not the measure of our will.

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A GREEK TORSO

ONE of the latest acquisitions of the Museum is a marble torso between 50 and 75 centimeters in height, which is in artistic worth perhaps the best piece of sculpture that the Græco-Roman Section of the Museum has as yet obtained. Nothing is known of its history except that it is said to have been obtained in Athens some years ago. As far as the material is concerned, there is nothing about it to belie this statement of its Greek origin. The marble is Pentelic, and, as is common with marble of this kind, has weathered from white to a rich brown. This choice of material would suggest that the sculptor lived in Athens, and took the most convenient marble for his work.

More important, however, is the technique and manner of workmanship. From this point of view there can be no doubt that we are in the presence of a pure Greek work of art; and, moreover, that it is the product of a real sculptor, not the kind of workmen that were employed to make the stelæ, or grave-reliefs, which though often most exquisite, are of necessity the work of artisans rather than artists. The pose recalls that of the "Idolino" at Florence. The modeling of both the front and back is executed with a delicacy and sureness of touch that point to a very good period—indeed, to one of the best in the history of Greek sculpture. And yet it is not in the greatest age of all—that of Pheidias or Praxiteles. It is rather of a somewhat later epoch, perhaps the end of the fourth century or beginning of the third century B. C.

It will be well, by giving a slight description of this torso, to point out a few convincing proofs of its relatively late date, before any attempt be made to compare it with other works of art. In the first place, it will be noticed that the left arm was made separately and connected to the shoulder with a dowel. The right arm was apparently carved from the same block with the body, but was broken off in the course of the ages, together with a large part of the shoulder, which has been restored in plaster. This practice of making the arm separately is a fairly late sign. It was not done in the Great Period; the sculptors of that age carved the whole statue from the same block.

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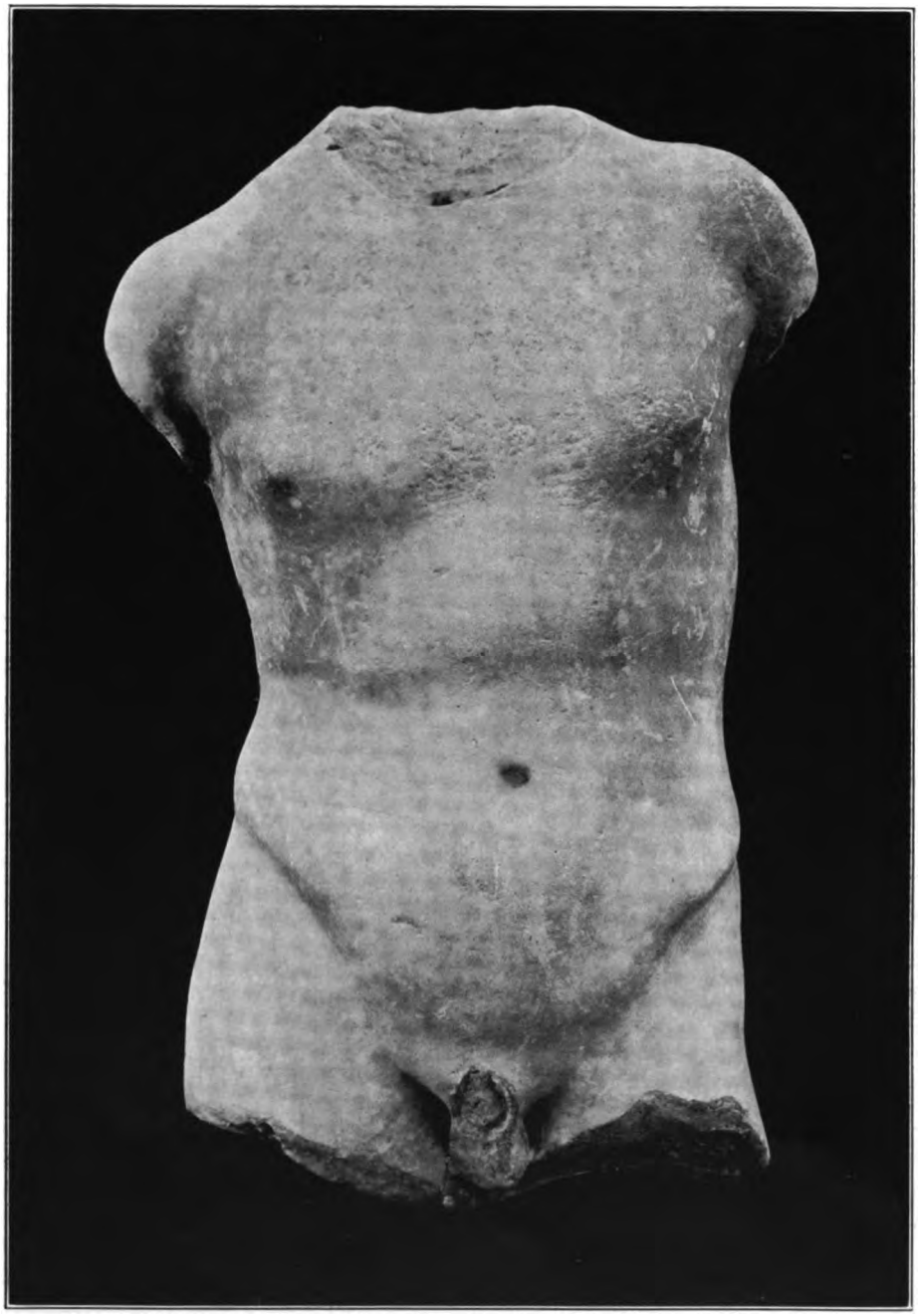

FIG. 110.—A Greek marble Torso in the Museum Collection.

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The torso in its present condition shows that the head was sunk into a hollow cut away between the shoulders, and fastened by two dowels. This is unusual in a work of this period, although it was done in draped sculpture, where the head would be of one kind of marble, and the body of another kind. The best known example of this is the Demeter of Cnidus, a work of art very properly assigned to the fourth century, where the draped body is made of an inferior local marble, and the head of Parian. But the Museum's torso is nude, and it is very unusual that this was done with a nude statue. It is almost incredible that a Greek artist of a period as good as this should deliberately put a head of one kind of marble on a nude torso of another kind; and if the head were the same kind, he would naturally carve it out of the same piece with the body. It therefore is the opinion of the author, although he is well aware that it cannot be proven, that this setting for a separate head was done at a later date; that the torso, as originally made, had the head and body carved from the same block; and that, in Roman days, the original head was removed, and a portrait head of a Roman citizen, or even, possibly, of an Emperor, was inserted. There is abundant evidence to prove that the Romans frequently did this, and that torsos, nude or draped, were kept in stock by Roman sculptors, and heads of patrons added. An example of this is the so-called "Germanicus" in the Louvre.* In this way a portrait could be very quickly made. Indeed, so thorough were the Romans in this respect, that for the portraits of ladies of noble birth, they not only kept torsos, both standing and seated, in stock, but the heads were made with removable headdresses, so that, when the style of arranging the hair changed, a new coiffure in the latest fashion could be supplied by the sculptor to replace the old, and the portrait could thereby be kept abreast of the time.†

Other dowel holes occur on the left side, two under the left shoulder, three on the hip and thigh. A modern restorer has filled

* An examination of Amelung's Catalogue of the Sculptures in the Vatican yields the following examples of "stock" torsos with portrait heads added:

Museo Chiaramonti 493, 494, 546 (female), 591, 637, 640, 686 (female).

Braccio Nuovo 77 (female).

Giardino della Pigna 212.

And there are doubtless a great many more, not only in the Vatican but elsewhere.

† An example of this is in the Capitoline Museum, in Rome, Room of the Busts of the Emperors No. 52 (a portrait apparently of Julia Domna). See Helbig, "Führer," 3d ed. (1912), Vol. I, p. 454, sub num.; and British School at Rome, "Catalogue of the Capitoline Museum," p. 203f.

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these holes with plaster. It is difficult to say for what they were intended. It is obvious that the figure was posed with the weight on the right leg; it is therefore probable that the three lower dowel holes were to connect the body with a conventional support, as, for instance, a treetrunk, or something of that nature. This view has much to recommend it; but it still does not account for the upper holes. It is possible, though not certain, that a fold of drapery was thrown shawl-fashion over the lost left arm, and fastened to the body.

A study of Reinach, "Répertoire de la Statuaire Grecque et Romaine" results in the discovery of several torsos that greatly resemble the one in the Museum from the drawings there given. These drawings, however, are so poor for purposes of identification that it is impossible to say to what period the marbles that they illustrate belong. In many cases, we know from the bibliography given for the different pieces that they are of later date.

Most closely resembling the torso in the Museum is one in Toulouse, published by Reinach in his Répertoire.* The two are almost exactly alike, both in technique and, what is more remarkable, in preservation.

Another torso published by Reinach† and owned in Périgueux, is apparently similar. The publication gives only a view of the back and left side. Though apparently of Roman workmanship, this piece is of interest because of the similarity of the modeling of the back and side to the modeling of the Greek torso in the Museum.‡

The best known Greek work, however, to which the torso in the Museum can be compared is the Praying Boy in Berlin, a work familiar to all lovers of Greek Art. In the mind of the writer there is no doubt that the torso in the Museum was executed at a time contemporary with, or very little later than, the casting of this famous bronze. There is in each case, although the pose is different, the same soft, impressionistic modeling, the lines melting into each

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* Rep. II, 2, p. 598, No. 6.

† Op. cit. II, p. 278, No. 3: and it is best published in Espérandieu, "Recueil des Bas-Reliefs (et Statues) de la Gaule Romaine," Vol. II, p. 252.

‡ There are four other torsos that show similar resemblances. They are in Reinach, Vol. IV, p. 68, No. 6 (in the Lariboisière collection at St. Germain); Vol. III, p. 171, No. 3 (at Timgad); Vol. IV, p. 374, No. 1 (in the Museo delle Terme at Rome); and Vol. II, part 2, p. 819, No. 2 (in the National Museum at Athens). Of these four, the first two show very marked likeness to the torso in the Museum and all four may have been from the same original.

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other to form an exquisite whole. There is the same ripple of the muscles of the front, the same sensitive delicacy in details in both. Add to this the warm soft texture of the marble that the sculptor has achieved, and compare the same treatment in the bronze of the Praying Boy. It would be presumptuous to say that the two were by the same hand; but it can be said that the two were made at about the same time and under the same influence. It may be that the Museum torso is a contemporary copy of a work in bronze by the same master.

This brings us to a consideration of the proper date at which to place the Praying Boy. Tarbell, "History of Greek Art," 1905 edition, pp. 257–58, makes it a work of the Hellenistic Period, that is of the middle of the third century. E. A. Gardner, "A Handbook of Greek Sculpture," 2d ed., 1907, p. 414, is inclined to place it earlier, and to call it a work executed under the direct influence of Lysippus, perhaps by his son Boedas. After calling attention to the fact that Boedas was not only a son, but a pupil of his father, he says, "A boy in the attitude of prayer, now in Berlin, standing with outspread arms, may give us some notion of a work of this kind by Boedas; but the subject is a common one, and the identification cannot be regarded as more than a guess, although the proportion and attitude of the figure suggest a more youthful version of the Apoxyomenos."

The view that the Praying Boy may be the work of Boedas is also suggested by Klein, "Geschichte der griechischen Kunst," Vol. II, p. 405, f. In fact, it is the prevalent belief today, and seems to the writer to have more to recommend it than the view of Tarbell.*

This being so, it is fair to assume that Boedas worked in the last half of the fourth century, and perhaps into the beginning of the third. To the writer, as to Gardner, the Praying Boy has all the earmarks of being a fourth century work. This would tend to make the Museum torso of earlier date than if we held to Tarbell's belief; and this view seems to be justified. The torso in question may therefore be a late fourth century work; and it cannot be later than the beginning of the third century. It is, therefore, contemporary with some of the most beautiful things in Greek art; but of especial

* It is only fair to say that Professor George H. Chase, Hudson Professor of Archæology of Harvard University, in a letter to the writer says that in his opinion "the authorship of Boedas . . . cannot be spoken of with much confidence," and that "it is certainly very much disputed." The writer wishes here to acknowledge his great indebtedness to Professor Chase for many suggestions incorporated in this paper.

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interest to us in America, it is contemporary with the charming Head from the Island of Chios, now in the Museum of Fine Arts in Boston. In short, in acquiring this torso, the University Museum has obtained a splendid work of art, which has lent a new dignity to its collection of Greek and Roman Sculpture.

S. B. L.

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FIG. 111.—Ojibway Painted Buffalo Robe. Presented to the Museum by Mrs. Harry Waln Harrison.

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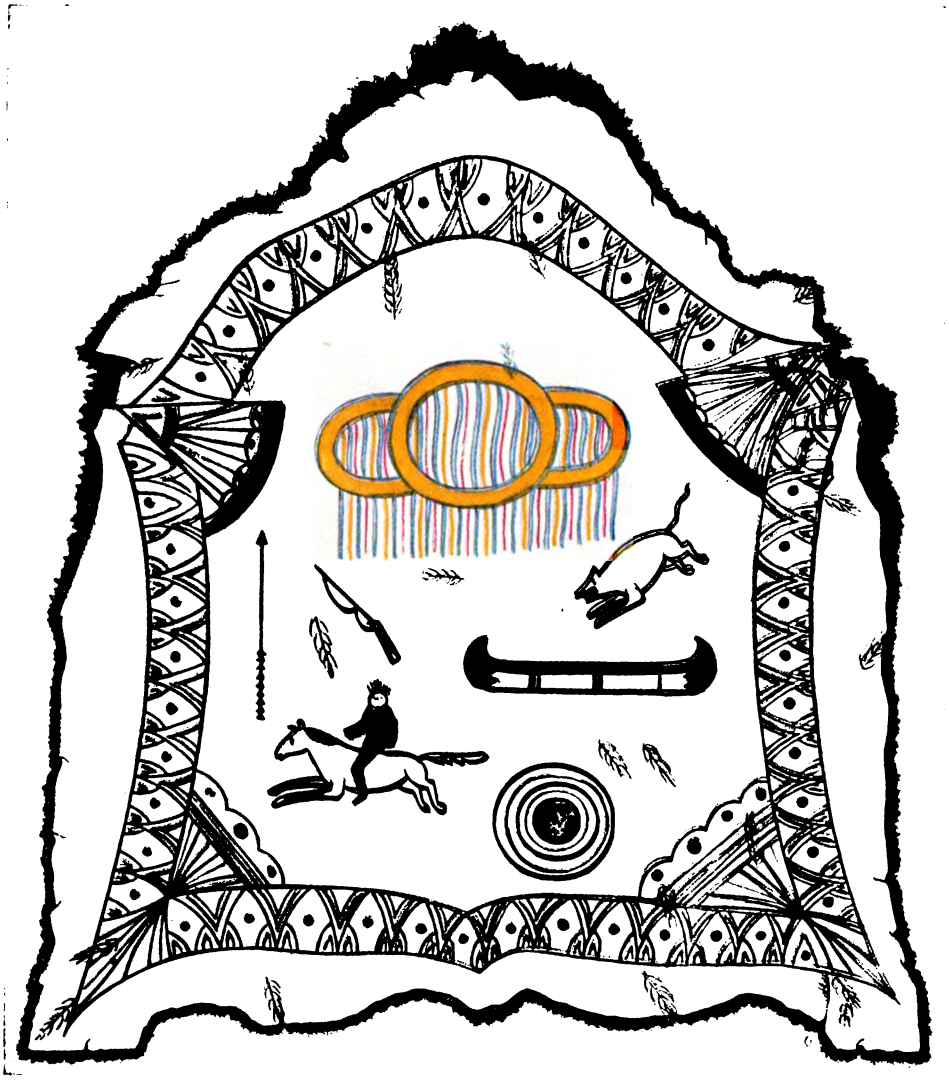

FIG. 112.—Ojibway Painted Buffalo Robe. Heye Collection.

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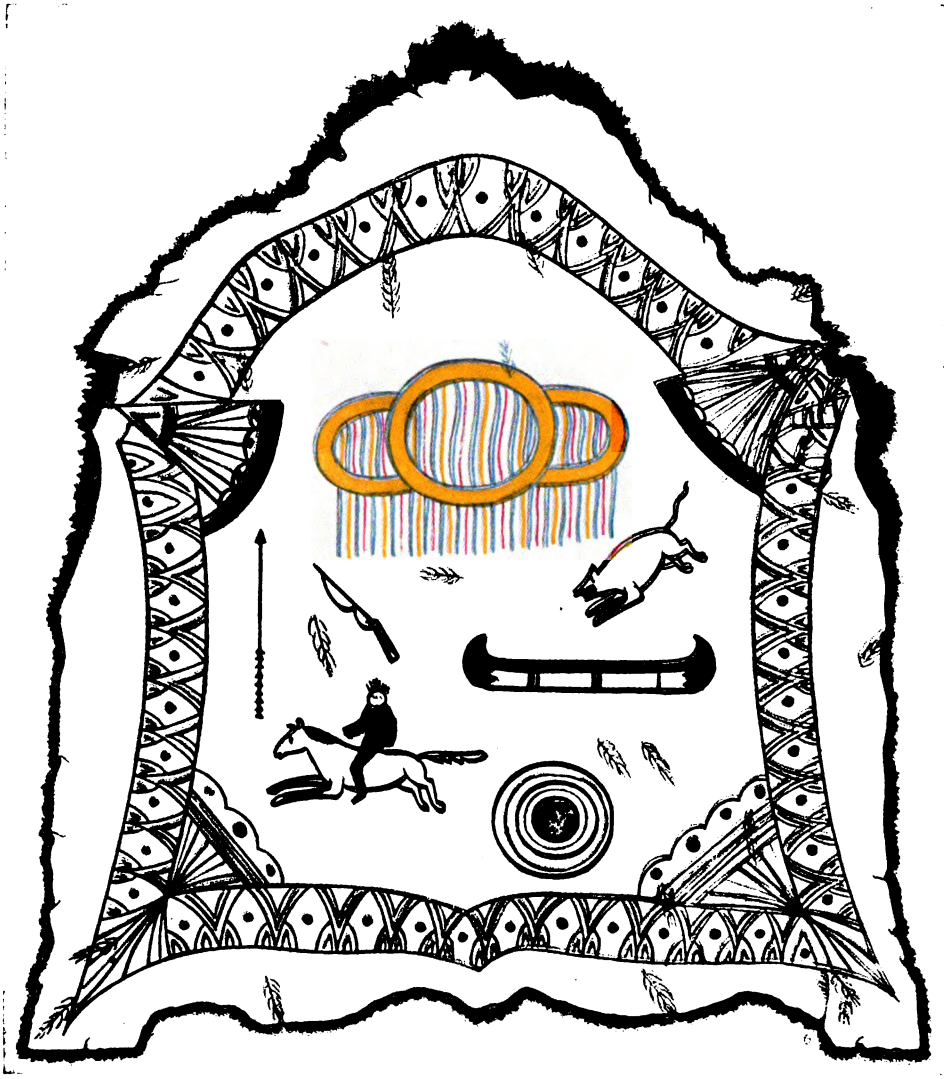

FIG. 112.—Ojibway Painted Buffalo Robe. Heye Collection.

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SOME OJIBWAY BUFFALO ROBES

RECENTLY an elaborately painted buffalo robe was presented to the Museum by Mrs. Harry Waln Harrison, in whose family it had been for many years. The robe presents points in common with seven robes in the George G. Heye Collection. Although we are thus able to call attention to as many as eight specimens of the type, it appears that this type is a rare one.

Unfortunately nothing is known of the history of any of these robes. From the painted designs it is clear that they were made and used among the Ojibway or Chippewa Indians near Lake Superior. Also these designs indicate that the robes were ceremonial and likely used in mystic rites.

Among the Ojibway, as among almost all the Indians of the United States, there were, besides the herb-using medicine men, several classes who professed to be mystery men or workers in magic. Longfellow sums these up for the Ojibway in a few words.

> "Then the medicine men, the Medas,
> The magicians, the Wabenos,
> And the Jossakeeds, the prophets,
> Came to visit Hiawatha."

Of these the Mide or Medas are by far the most important and numerous.

The Midewiwin is a secret society composed of men, women and even children. Its object is to preserve the tribal traditions and myths and also to give a certain class of people sufficient influence through their acknowledged power of exorcism and necromancy to lead a comfortable life at the expense of their credulous neighbors. The ritual and myths used in the Midewiwin constitute a religion which is very powerful and impressive to its members.

In order to become a Mide the candidate must first fast and have a strange dream. This dream he tells to one of the Mide who talks it over with others. If the candidate is acceptable he is notified and put under the instruction of some old Mide. This instructor, by means of songs and records preserved on birch bark, teaches the candidate regarding many plants and many ways of dealing with

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the spirits. Instruction is also given regarding the peculiar and special properties of the drum which is used to assist in expelling evil manidos or spirits from the body of a sufferer. Then the rattle and its properties are explained. It is used at the side of a patient and is even more potent than the drum.

After this preliminary instruction, after various ceremonies and chants and after the payment of a certain sum, the candidate is admitted to the lowest degree of the Midewiwin. He is now able to perform simple feats in medical magic. In the second degree the candidate receives supernatural powers so that he can see into the future or hear what is going on at a great distance, while in the third degree these powers are augmented. The fourth degree makes it possible to accomplish great feats in magic, to read the thoughts and intentions of others and to even call forth the shadow or soul of a person or animal and retain control of it. At this stage the Mide has become a Jessakkid or prophet.

However, a man, not a Mide, may become a Jessakkid or prophet by fasting and dreaming until the thunder god, Animiki, grants him power to prophesy. Few become Jessakkids in this manner and they who do, usually in youth. Such a prophet's renown depends upon his audacity and his ability to hoodwink the people. He has the power of the fourth degree Mide to prophesy and to control the shadow or soul of others. Unlike the Mide, however, who gets his power from the good spirits, the Jessakkid gets his power from the evil spirits, which are not as strong as those of the Mide. A Jessakkid, who has become a third or fourth degree Mide, is possessed with very great power as both good and evil spirits are under his control. The Jessakkids are not organized and hence there is no initiation.

To the third class of mystery men belong the Wabenos. They as a class have no connection with each other except that all have been inspired by a dream of the sun, morning star, or some evil manidos. By the use of the power thus gotten, the Wabeno is able to furnish "hunting-magic" and "love-powders." He also practices medical magic. If a hunter, to whom he has furnished "magic," is successful, the Wabeno is presented with a part of the game. This food is then served for a feast to the helping tutelary spirit. The feast occurs throughout the night during which time dancing and singing and exhibitions of the skill of the Wabeno are indulged in. In these exhibitions, besides many feats of skill, the

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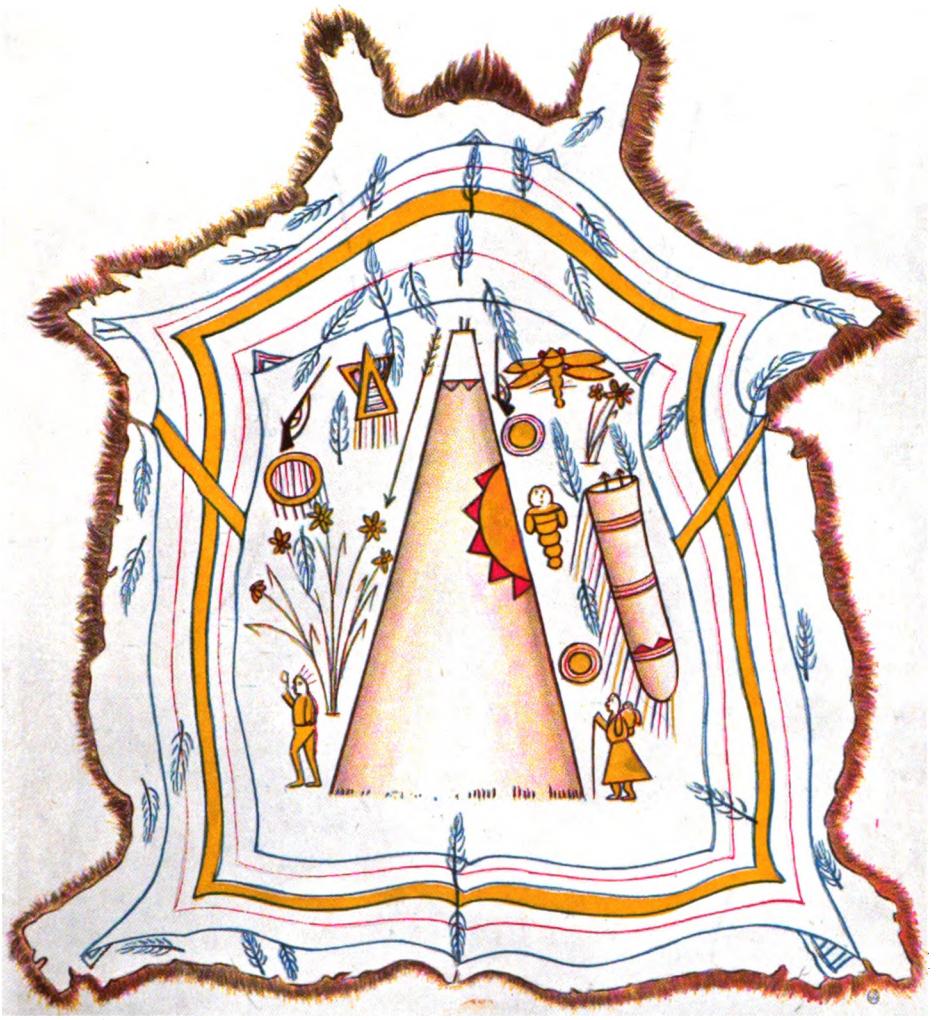

FIG. 113.—Ojibway Painted Buffalo Robe. Heye Collection.

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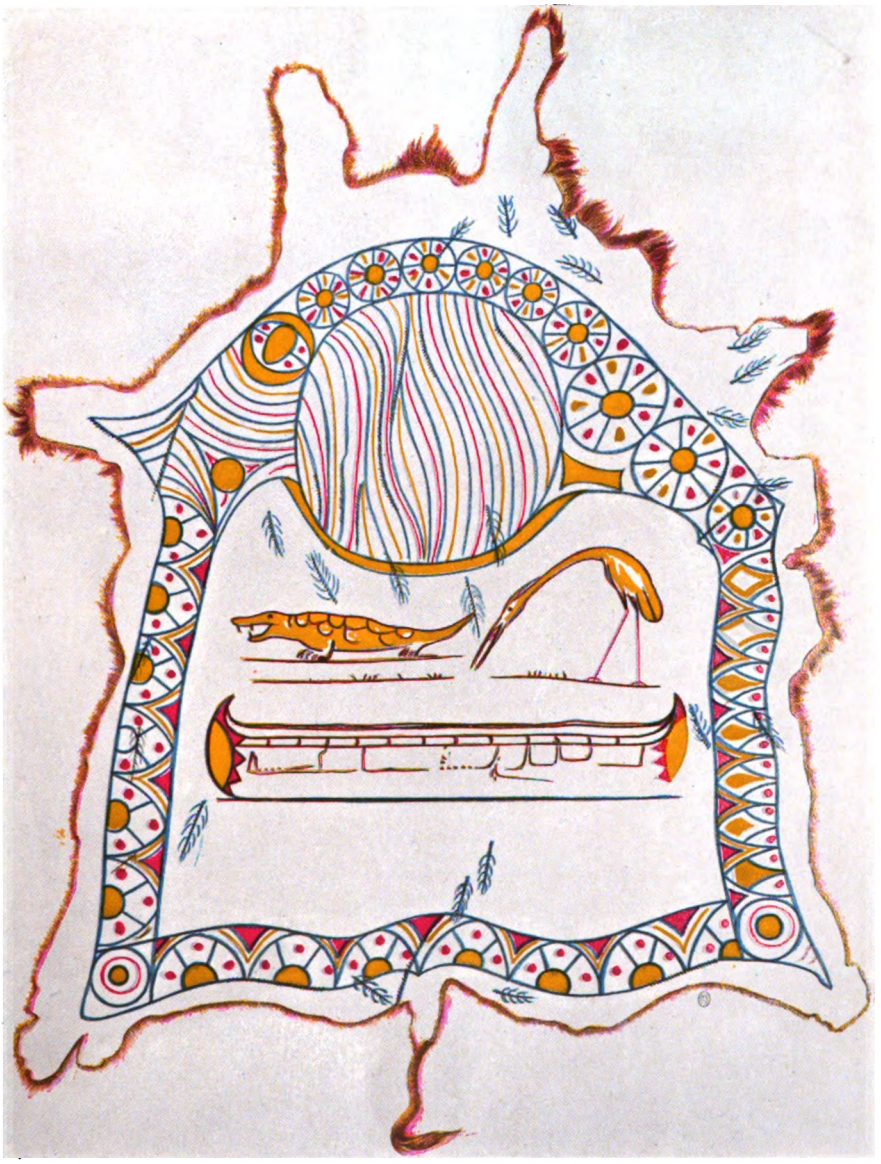

FIG. 114.—Ojibway Painted Buffalo Robe. Heye Collection.

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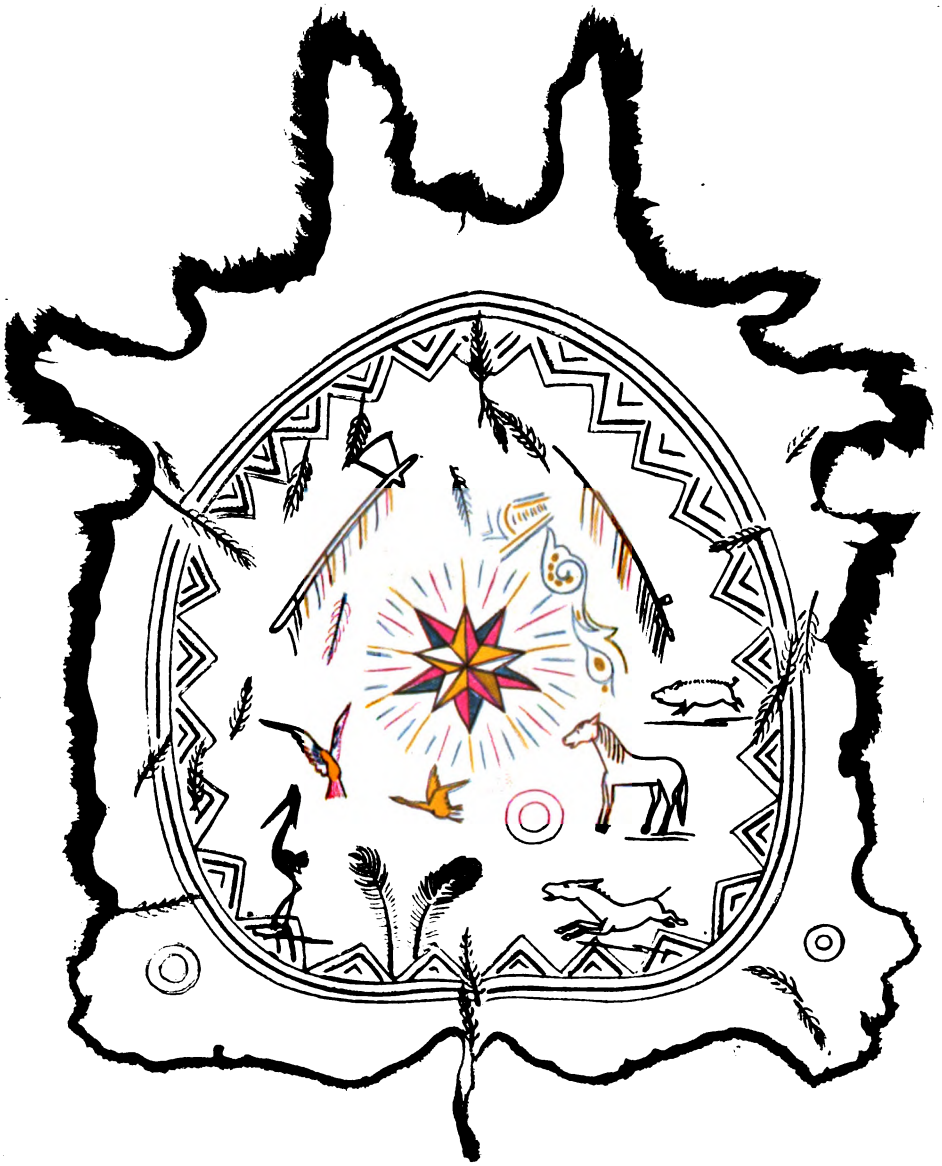

FIG. 115.—Ojibway Painted Buffalo Robe. Heye Collection.

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Wabeno dips his hands in boiling maple syrup without showing discomfort and handles hot stones.

As a general rule a Wabeno seeks to become a member of the Midewiwin as he then becomes more powerful. The success of the Wabeno's "hunting-magic," in many cases, is due to a study of the country and to the habits of various animals and to information received from returning hunters. As in the case of the Jessakkid, the Wabeno is strongest if he is a Mide of the fourth degree. Such an individual is dreaded on account of his remarkable power of inflicting injury and otherwise doing evil. Wonderful tales of his performances are told, especially those with fire. Holding burning coals, eating fire and blowing it from his mouth are some of his most spectacular feats. It seems probable that it was by this last class of shamans that the robes illustrated in this JOURNAL were used.

All of the robes have three divisions of decoration in common: a series of pictographs, a border, and a number of sewed up slits. The pictographs quite likely represent the dream which inspired the shaman, while the border is possibly due to mere custom in decorating. The borders in a few cases agree with the Wabeno symbol for "cloudy sky" given by Schoolcraft, so that the borders very likely stand for the sky which surrounds everything. Other Wabeno symbols are painted on some of the robes. A common one is a circle with a semicircle to the right and left of it, which represents the sun or great spirit that inspired the dream. The colored lines running through and down from the figure show that the power comes down from the sun to the Wabeno. In Fig. 114 incorporated in the border, is a part of a somewhat similar design but without the lines extending down. Fig. 113 shows merely a small circle with the lines mentioned, which doubtless has a similar meaning. In Fig. 115 instead of a sun design there is a star, which sends out power. The arrow which occurs on four of the robes is said to be charmed or magic, and to represent a helpful spirit.

There are two other designs occurring frequently which refer either to the sun or to the period of time, measured by the sun, one day. One of these is a series of concentric circles, examples of which are found on six of the robes. The other design is a yellow circle with red points on its border, which occurs on the ends of all the canoes, on the sides of the tepees, and in part on the quivers.

Most of the robes have figures of animals which are very well drawn and full of life. Of these animals many, if not all, have some

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symbolic meaning or are mentioned in the myths of the tribe. The buffalo stands for strength and wisdom; blue herons often are said to help the Thunder Bird; and the dragon fly is used as a protective symbol and also is mentioned in a number of myths. The alligator-like animal in Fig. 114 and the unknown animal on Fig. 118 have similar markings and may both refer to some mythical animal. The possum or bear-like animal (Fig. 112) is very much like the copper-tailed bear, which, according to various myths and superstitions, guards the copper mines of Lake Superior. Most of the other animals doubtless have some symbolic reference which is not known. Of the human figures depicted, only one faces the right and has a distinct mouth or chin. The men who are dancing hold rattles, which at once show them to be Mides or Wabenos. The entire set of pictographs doubtless represents the dream in which the individual received his power as a shaman.

The third feature of the robes consists of a number of cuts. The robes have been slit at various places and then sewed up, usually so that the stitches are on the hair side of the robe. Then the cut is painted with a blue line and simple branches added usually in blue, although rarely in yellow, red or brown, to form a tree-like figure. In some cases the branches are not drawn. The robes have from fourteen to fifty of these slits. The cuts with branches may represent the various kinds of plants with which the owner is familiar, while the others may stand for bulbs or roots. The cut through the robe may be to show that the plant comes from the earth. The use of these mystic cuts is doubtless confined to a few mystery men of the Great Lake region.

There are many other odd features of these robes, such as lack of symmetry in many places. All of them show the same colors in similar objects. The men are all yellow, outlined in brown with a red shading or fringe to the back of and below the figures. The men also wear four or five feathers which signify that the wearer is brave, having performed some feat in war. The canoes are all outlined in brown with similar yellow and red decorations at the ends. The canoes doubtless have some symbolic meaning that is now unknown.

It is certainly much to be deplored, that, owing to the paucity of information, the exact uses and meanings of this group of symbolic robes are not positively known. However, in the future more may be learned concerning them. B. W. M.

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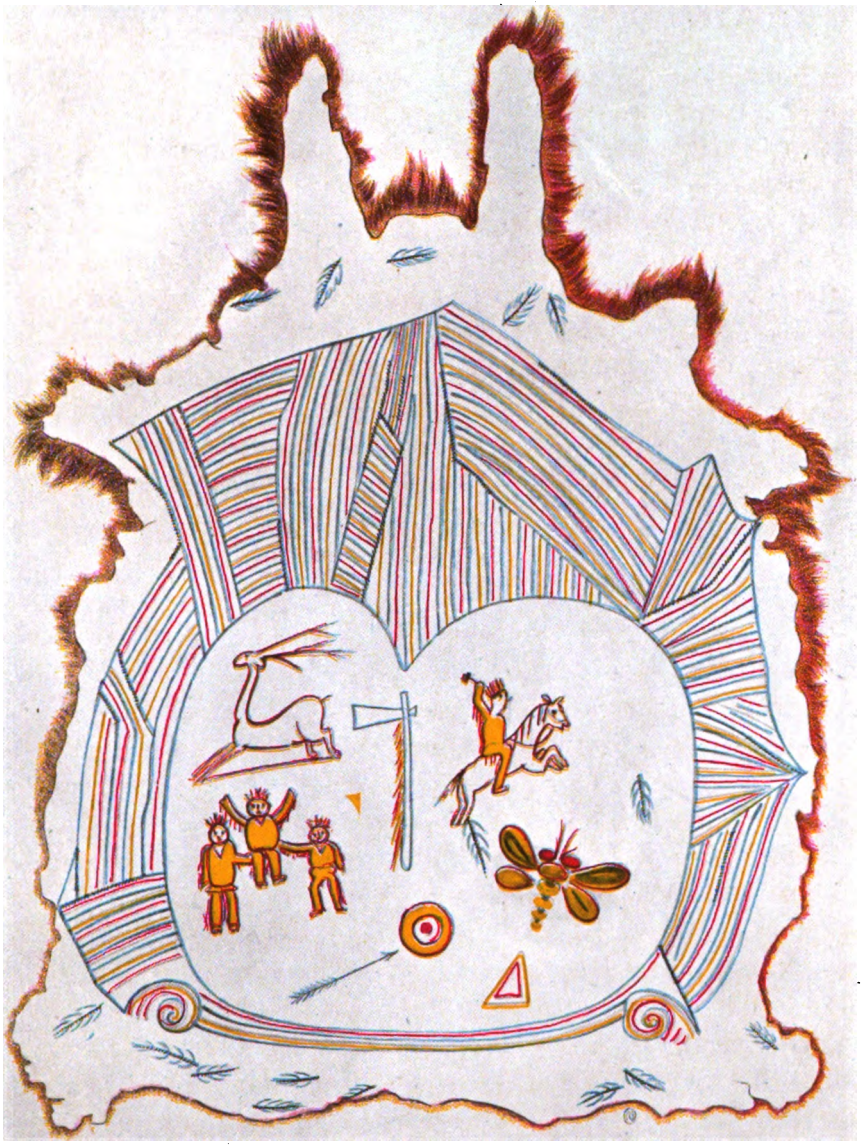

FIG. 116.—Ojibway Painted Buffalo Robe. Heye Collection.

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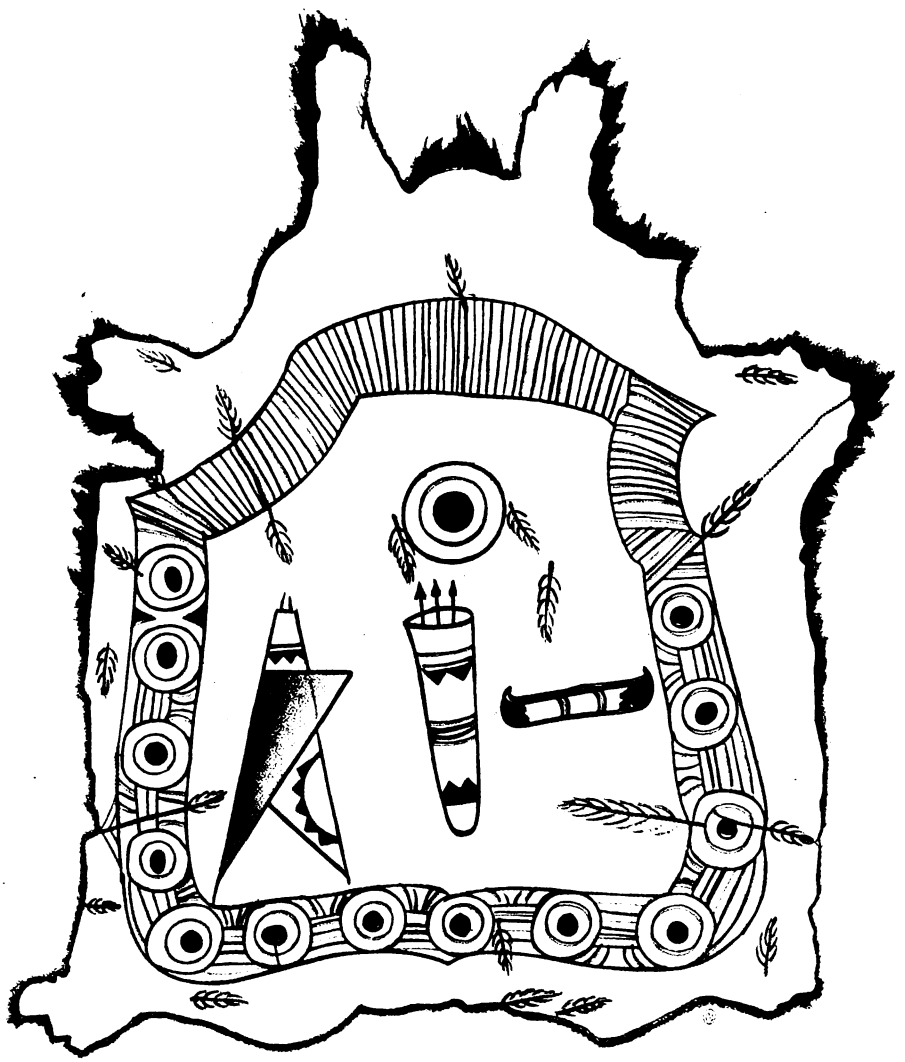

FIG. 117.—Ojibway Painted Buffalo Robe. Heye Collection.

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FIG. 118.—Ojibway Painted Buffalo Robe. Heye Collection.

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THE EXPEDITION TO THE FAR EAST

IN planning the University Museum's Eastern Asiatic Expedition, or, more properly speaking, reconnaissance, it was considered desirable to study the possibilities for archæological research and collecting in several distinct and widely sundered areas. Among these was, for one, the region anciently inhabited by the Yamato race, the founders of the Japanese Empire; and, in connection with it, those portions of eastern and northern Japan formerly occupied by the Stone Age predecessors of the Japanese and only subdued after centuries of the most savage border warfare. Korea, for lack of time, it was necessary to treat as a unit, although really very great differences have existed, particularly in early times, between the north and the south of that peninsula. In China the objectives chosen were two: the seat of the oldest Chinese civilization of primitive days, in the upper Yellow River valley; and those regions lying to the west and southwest, bordering upon Tibet and Further India, which were annexed to the Chinese Empire in relatively late times and are still imperfectly assimilated.

The few weeks immediately following my arrival in Japan, in February of 1915, I devoted to a study of the central provinces, with their historic sites, their public museums, and their private collections. Throughout this work I met with the utmost courtesy and helpfulness from all with whom I came in contact. I was fortunate enough to be the bearer of letters of introduction from H. E. Viscount Chinda, the Japanese ambassador at Washington, to a number of gentlemen high in official and educational circles in Tokyo, and from all of these I received invaluable help.

The region about Nara and Kyoto, the two ancient capitals (the former from A. D. 709 to 784, the latter from 794 to 1868) is particularly rich in remains of the past of every sort and period. The countryside is studded with graves dating from the so-called dolmen or protohistoric period, which terminated roughly with the seventh Christian century. In connection with these many interesting discoveries have been made, partly as the result of accident and partly through scientific investigations conducted by

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properly equipped archæologists. During that early period it was customary to bury the more important dead in baked clay sarcophagi painted with vermilion; one of these, through the good offices of a Japanese friend, I was able to secure for the University Museum.

From Nara I proceeded to the province of Ise, not far distant, where it was my privilege to visit the sacred shrines, the holiest in the Empire, and to inspect the Imperial Museum at Yamada, close by. This museum, while smaller than those at Tokyo and Kyoto, is highly interesting for the light which it throws on some of the earlier phases of Japanese life. Particularly good are the life-size groups illustrating the costumes worn from the earliest known times downward.

Prior to the introduction of Buddhism from China the capital of Japan had not been fixed, but had been moved from place to place. This nearly always took place at the death of a sovereign, when his habitation was looked upon as having in consequence become unclean. The growing complexity in social and political organization, however, and also the improvements in temple and palace architecture learned from the Chinese and Korean Buddhist missionaries, made it more and more inconvenient to move the capital about from place to place. At length it became definitely fixed, first at Nara and then at Kyoto, as already stated, and at these centers Chinese influences held almost undisputed sway for some centuries.

The one factor which more than anything else preserved Japan from developing along the lines of Korea, and becoming merely a second or third rate imitation of the Chinese Empire on a small scale, was the development of a military class and a military tradition. This was the result of the long and bitter struggle with the aborigines of the eastern border. These people, when first known, seem to have been in a high stage of the Neolithic or later Stone Age; soon, however, they secured weapons and armor of metal, partly from the dead bodies of their Japanese foes, left on the battlefield, and partly through an illicit trade as highly reprobated as was that in firearms carried on by unscrupulous traders with the Indians of our own frontier days. Numerous, brave, and often ably led, these barbarians, whose degenerate descendants are now known as the "hairy Ainu" of the island of Yezo, held their own in the northern part of the main island of Japan for many centuries.

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FIG. 119.—A junk hauling through the rapids.

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FIG. 120.—Sheer cliffs are characteristic of the gorges of the Yangtse.

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While in Kyoto I was able to purchase for the University Museum a set of MSS. volumes, profusely illustrated with water-color sketches, and giving an account of a visit by a Japanese official, late in the eighteenth century, to the Yezo Ainu. This account, in journal form and written by a man who was evidently a close, conscientious, and sympathetic observer, as well as an artist of no mean ability, at a time when the Ainu had been far less modified than is the case today by contact with outside cultures, seemed likely to prove of value as throwing new light upon the past of an interesting but little known and now nearly extinct race.

In this connection I made a visit, about the middle of May, to northern Japan, with the twofold object of seeing what I could of the surviving aborigines, and of studying the remaining traces of their former occupancy. That most important epoch within which the Japanese and Ainu races were in such long and generally hostile contact has been singularly slighted by foreign writers. This is the more curious because it was within this period, and on account of that contact, that the Japanese racial character took on all the dominant traits which distinguish it today. It is very much as though writers upon American history should confine themselves to the purely local development of the Atlantic seaboard and its relations with the European countries from which our civilization is derived, and ignore or at best barely mention our Indian wars and the gradual occupation of the country between the Alleghanies and the Pacific.

My first objective was the site of the ancient Taga fort, erected as an outpost against the Ainu in A. D. 724, near where the present city of Sendai stands. The fort stood for half a century, and then was stormed by the northern barbarians, who massacred the entire garrison and pushed their raiding parties two hundred miles to the southward, into the region about the present city of Tokyo. At that period the Japanese castle had not developed into the many storied structure with elaborate moats and snow white walls and roofs of tile that dotted the country in later days. It was merely an earthwork, usually perched upon a hill, and consisting perhaps of a number of concentric embankments surmounted by palisades, with a wooden blockhouse in the center as a last refuge for the garrison in case the outer works were carried. The type was one familiar enough to our forefathers in the Transalleghany country.

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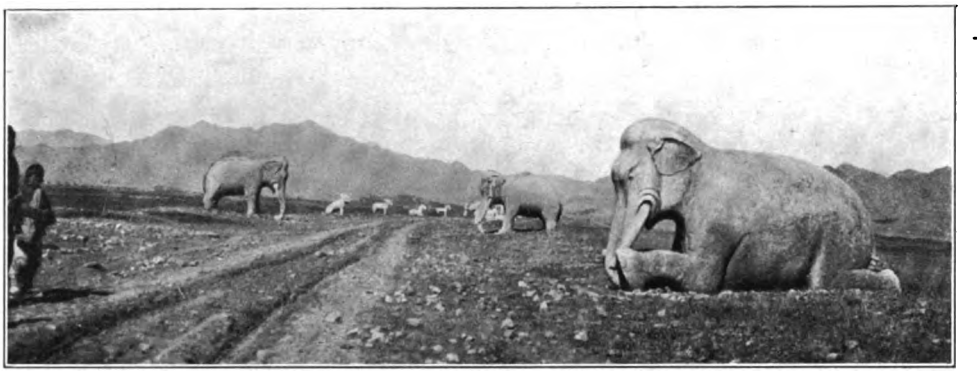

FIG. 121.—Avenue leading to the Ming Tombs.

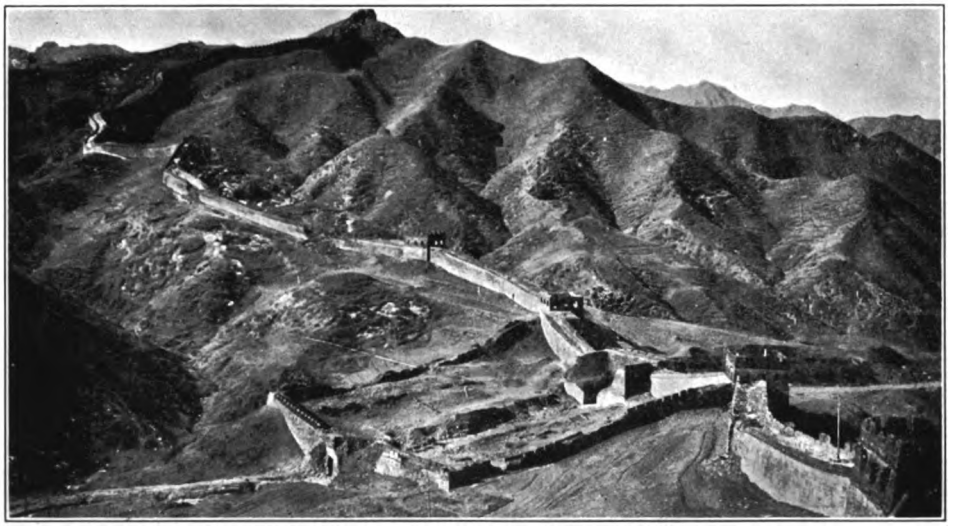

FIG. 122.—The Great Wall at Nankow Pass, looking west.

FIG. 123.—Northern Chinese farmer, harrowing a Kaoliang field.

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I found the ancient fort situated upon the crest of an isolated hill, surrounded on practically all sides by deep ravines, pools of water, and low-lying marshy ground, and commanding what was, in 724 as in 1915, the main road to the north. Several more or less concentric lines of earthworks were still discernible, overgrown with trees and bamboo thickets, and part of the site is occupied by a tiny farming hamlet with its surrounding fields. Upon the truncated summit of the hill, embedded in the soil, are to be seen rows of huge flat stones which served as bases for the great wooden columns forming the uprights of the old keep or donjon. The soil of the entire site is constantly yielding fragments of pottery, roofing tiles, and other articles of ancient type, washed out by rains or turned up by the hoe of the peasant, and would undoubtedly abundantly repay excavation and detailed study. Certain fragments of the pottery seemed to me to resemble those from neolithic sites, and in fact the position is just such a one as would have been occupied by a community of the aborigines before the Japanese invaded the region.

From the Taga fort I went, via Aomori and Hakodate, to Sapporo, the capital of the island of Yezo, and there, thanks to a letter of introduction to the Governor General which I bore, I was accorded every facility for pursuing my investigations. After conversations with the Rev. John Batchelor and others familiar with the existing settlements of the Ainu, I decided upon visiting Piratori and Niptani, two villages in the southern part of the island. Upon my arrival at the first named place, late at night, after a long and cold ride in a rickety old *basha* or stage, I found to my intense delight that the place contained a snug and spotlessly clean little Japanese inn, and that my visions of having to sleep in some Ainu outhouse were quite groundless. Presently the Japanese mayor of the town called and stated that he had received telegraphic instructions from Sapporo that I was on the way, and was to be shown every assistance. This wholly unasked and unlooked-for act of thoughtfulness on the part of the government was quite in keeping with the treatment which I received throughout the Japanese Empire.

The mayor told me that he believed the Ainu I might meet would feel freer and less constrained about answering any questions I might put to them regarding their present condition if I were provided with an interpreter of their own race, and that he had accordingly instructed a young Ainu, educated at Tokyo and now

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FIG. 124.—White marble gateway on avenue to Ming Tombs.

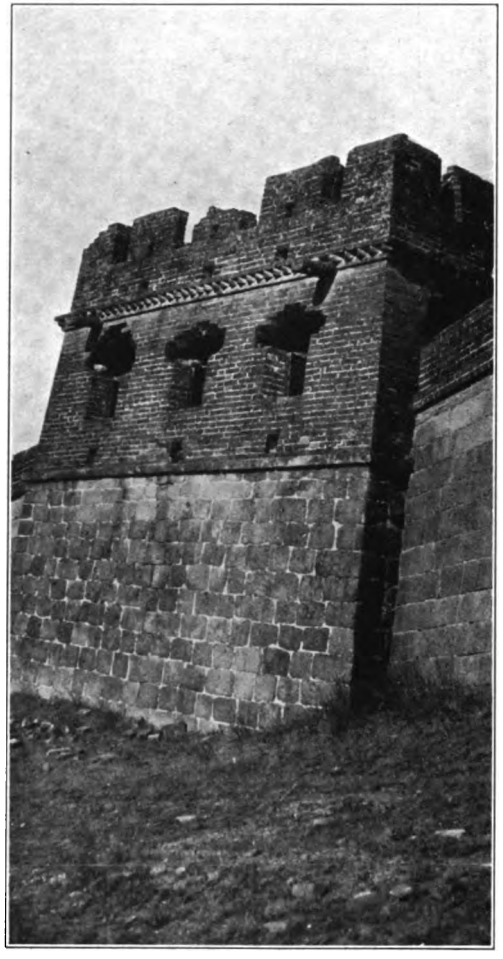

FIG. 125.—Tower on the Great Wall.

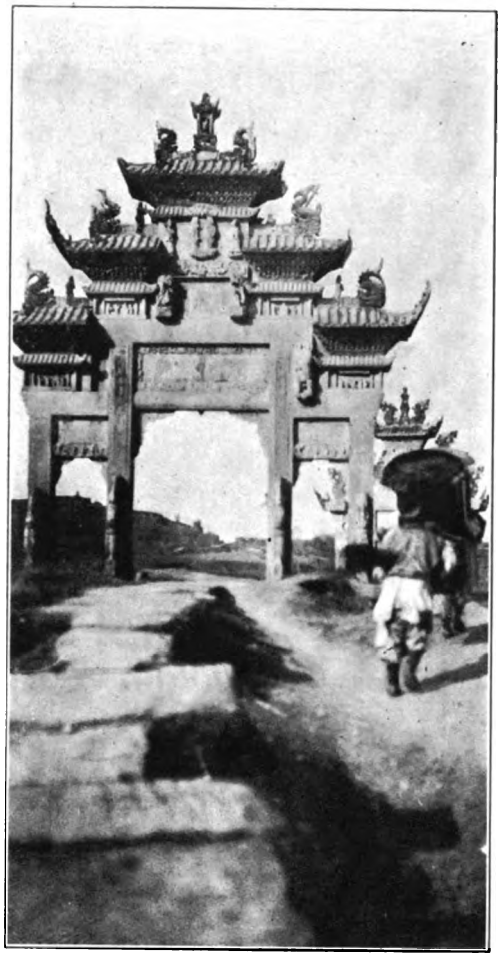

FIG. 126.—"Pailows" or commemorative monuments on main road from Ch'ung-king to Ch'êng-tu.

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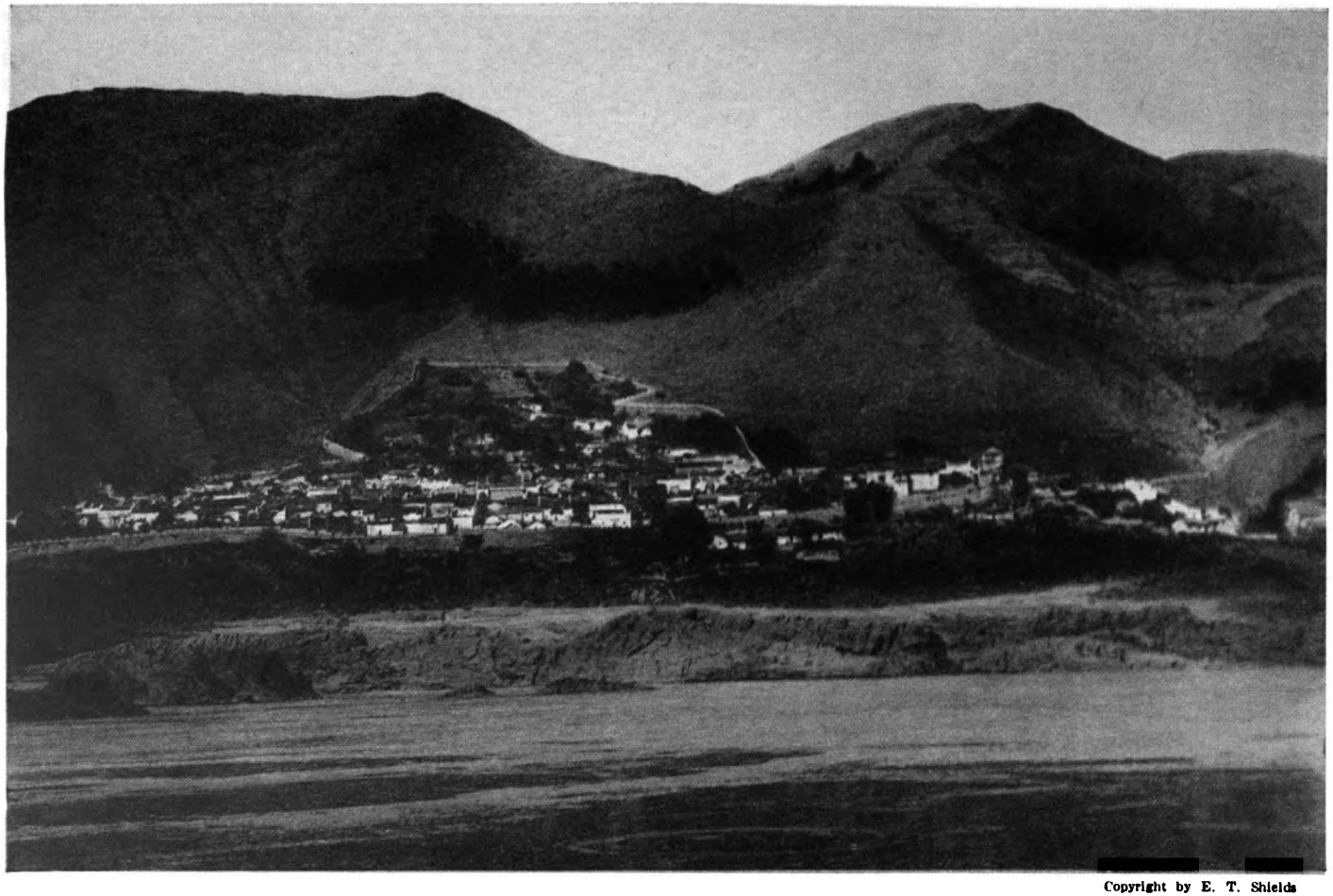

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FIG. 127.—A characteristic walled town built above the flood level on the Upper Yangtse.

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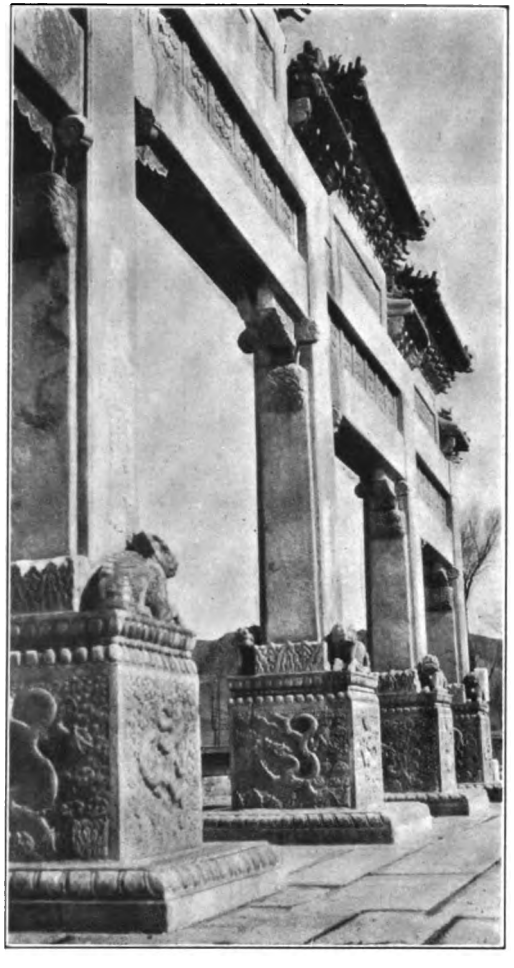

FIG. 124.—White marble gateway on avenue to Ming Tombs.

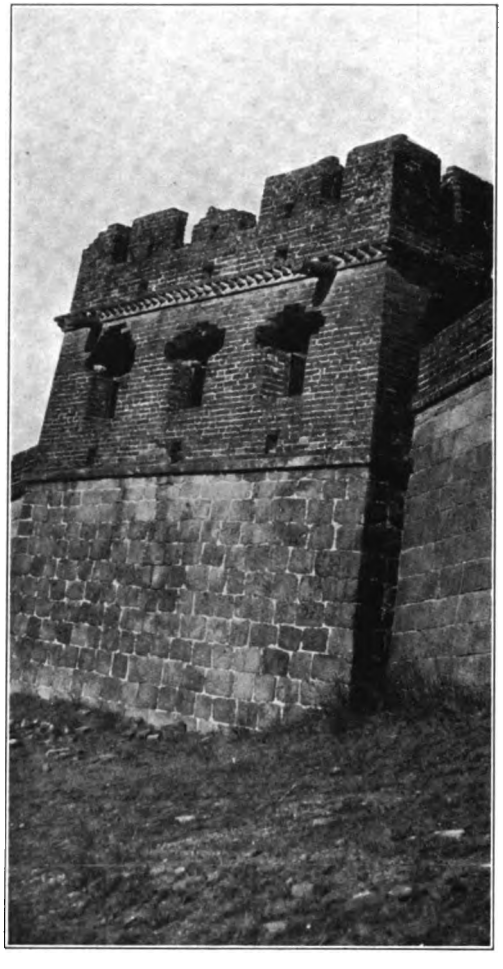

FIG. 125.—Tower on the Great Wall.

FIG. 126.—"Pailows" or commemorative monuments on main road from Ch'ung-king to Ch'êng-tu.

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FIG. 127.—A characteristic walled town built above the flood level on the Upper Yangtse.

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employed in his office, to accompany me the following day. Early next morning the young man appeared, and took me to visit several Ainu families in the community. I also had the pleasure of calling upon Miss Bryant, a most devoted English missionary who has spent eighteen years in this region, and who gave me a number of valuable suggestions regarding the best use to be made of my time.

One of the points of interest in the vicinity of Piratori was the so-called Shrine of Yoshitsune, a plain wooden building on the hill back of the village, closely resembling an ordinary Japanese shrine, but with a roof of shingle instead of thatch. It is dedicated to the famous Japanese hero of the twelfth century, who aided his elder brother Yoritomo to establish himself as *shogun*, or *de facto* ruler of Japan. Later, having the misfortune to incur his brother's causeless jealousy, he was forced to flee to the wilds of the northern part of the main island, where he had spent his youth, and here he is generally supposed to have been slain by his brother's emissaries. How and where he became an object of adoration among the Ainu is unexplained. Certainly no cult of Yoshitsune exists generally among the Ainu, and so far as I am aware there is no other shrine in Ainuland to the memory of the hero. Even here at Piratori there is apparently no active worship conducted at the shrine, which would appear to be nothing more than a memorial. On the other hand, that Yoshitsune has been an object of reverence among the Ainu for some time is suggested by a passage in eighteenth century Japanese literature which mentions songs in his honor sung by natives of Yezo, and "closely resembling the ritual of the Shinto worship." Curiously enough, one legend takes Yoshitsune not merely to the island of Yezo, but into the heart of Asia, where he reappears as the world-conquering Genghis Khan, the leader of the Mongols.

Leaving the settlement of Piratori I got myself put across the Saru River in a narrow and cranky dugout canoe poled by an ancient Ainu of kindly mien, but most unbelievably filthy in person and clothing. About an hour's walk in the rain brought me to the next village, Niptani, which was much more typically Ainu in all respects. Here, in spite of wind and sleet, I managed to get some photographs illustrative of Ainu architecture, and had an interesting chat with the village headman, a fine looking man with a heavy iron-gray beard, who had traveled as far as London, he proudly told

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me. I won his heart by taking a picture of his favorite riding horse, a great black stallion of American stock from the government breeding farms near Sapporo. The Ainu have been horsemen for ages. Whether they originally secured their horses by raids upon the border settlements of their Japanese enemies, or whether they brought them direct from the Asiatic continent, is doubtful; but the fact remains that at a very early period they had large herds of horses, which they traded to the Japanese for metal arms and armor.

It is curious, and perhaps significant, that Ainu storehouses elevated above the ground on posts, such as the Ainu still use, were known to the ancient Japanese, and in fact still survive as sacred treasuries in temple enclosures. The same type of storehouse is known in the Loochoo Islands, between Japan and Formosa, where the people speak a language allied to the primitive Japanese tongue and are in part at least an early offshoot of the same race. These storehouses form a well-marked feature of the Ainu villages, as do the great piles of wood split and piled up near the houses against the bitterly cold northern winter.

I was greatly pleased to see at Niptani the school conducted by the Japanese authorities for the Ainu children. It seemed well equipped with all appliances needful for both work and play, and the school children appeared both bright and happy. I was told, too, that Ainu soldiers had taken part in the Russo-Japanese War, and had acquitted themselves loyally and bravely.

Upon my return to central Japan I was able to secure for the Museum a *makimono* or picture roll painted in the early seventeenth century, depicting episodes in the wars which took place in the wilds of northern Japan about the close of the eleventh century, when that distant and barbarous region was definitely brought to recognize the sway of the Emperor ruling in Kyoto. The Ainu tribes of the country had been overthrown and subjugated by bands of Japanese invaders two or three centuries earlier; but these conquerors, like the early Normans in Ireland, once they had made their conquest good, refused to submit themselves to the authority of the central home government. The *makimono* depicts the overthrow of one of these rebellious northern chiefs by Minamoto Yoshiiye, better known as Hachiman Taro, or "Firstborn of the God of War." While the painting was executed long after the period when the events depicted took place, yet the artist appears to have avoided anach-

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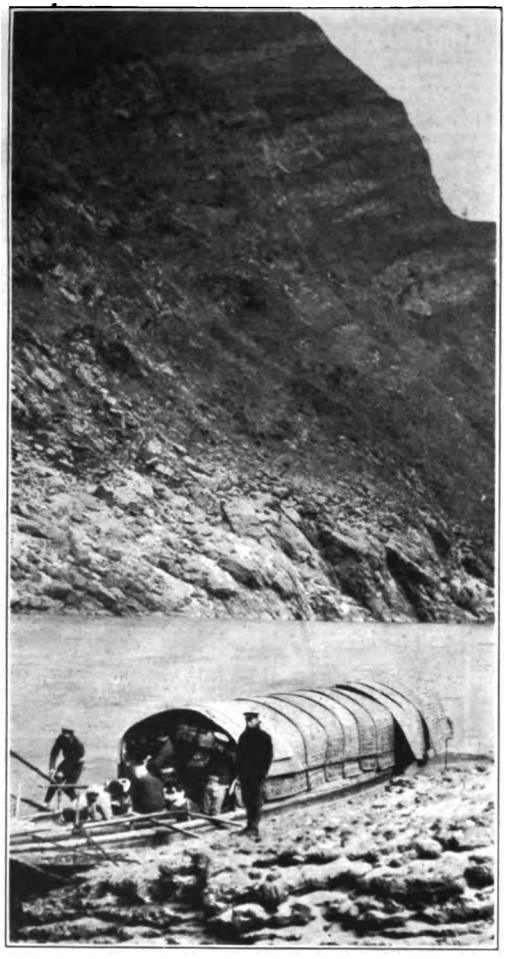

FIG. 128.—The writer's boat windbound in the Yangtse Gorges.

FIG. 129.—Type of junk used on the upper Yangtse.

FIG. 130.—Typical scenery in the Yangtse Gorges.

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ronisms very successfully; and in fact there is good reason to believe that it is a faithful copy of a much earlier painting.

Early in June I went to Nikko to witness the celebration of the tercentenary of the death of Tokugawa Iyeyasu, the founder of the Tokugawa shogunate. It was most instructive to examine the collections of the various temple treasuries, not ordinarily placed upon exhibition, as well as to watch the processions, with their troops of armored pikemen and archers and arquebusiers and horsemen, their standard bearers, and their attendants, all decked out in the actual armor, costumes, banners, and weapons of the day, three hundred years before, when the great *shogun* breathed his last. The one jarring note was afforded by a pikeman who trudged past the reviewing stand smoking a cigarette between the bars of his helmet.

The latter part of July found me in Peking. As nearly all of the people whom I wished to see were away for the summer, I seized the opportunity to visit most of the local sites of interest, although the intense heat made sight-seeing the reverse of pleasant. I also managed to get in touch with a number of people who later placed me under deep obligation by their kindnesses.

By the early part of September I was back once more in Japan, for the purpose of inspecting the Imperial treasury of the Shosoin, at Nara, a privilege which I owed to the courtesy of the Imperial Household Department. This collection is very rarely shown. Indeed, Murray, in his "Handbook for Japan," goes so far as to state that it "is now never shown," while Terry says, in his "Japanese Empire," "Unfortunately it is now closed to all except persons of the highest rank, and then only in October, when the treasury is opened for the purpose of airing the contents." Consequently I was deeply gratified at this additional act of kindness on the part of the Japanese authorities in extending to me permission to inspect this ancient and unrivaled collection.

The contents of the treasury consist in large part of the palace furniture of the Emperor Shomu, who reigned during the eighth century, when the capital of Japan was at Nara. Upon his death these articles were presented by the Empress to the Todaiji temple there. They comprise a wide range of objects, many of Korean, Chinese, and even Persian or Roman (Syrian) origin, and include bows and arrows, swords, spears, javelins, an odd sort of halberd with a blade shaped like a lambent flame—a type peculiar to the

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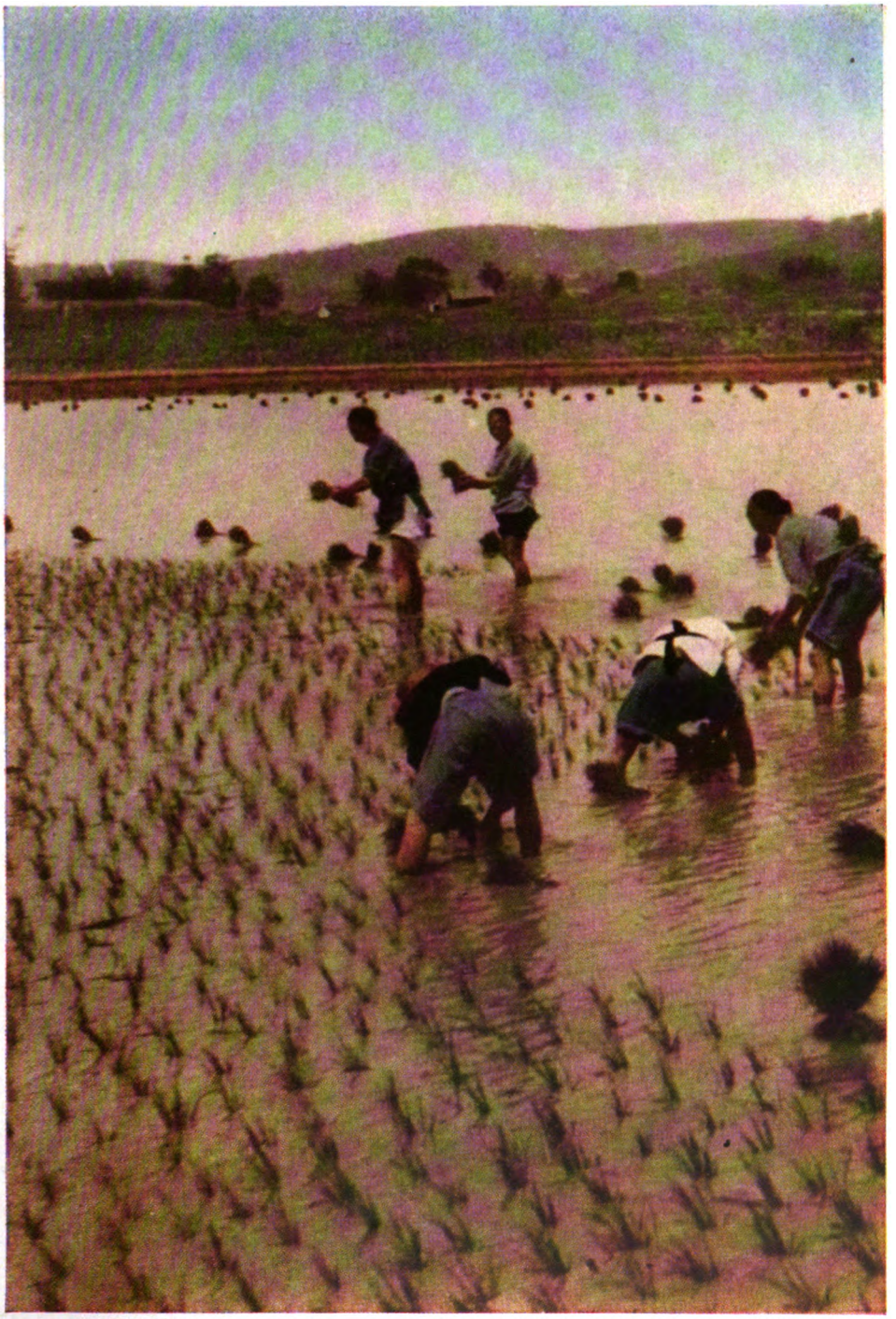

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FIG. 131.—Transplanting rice. A staple crop of the lowlands of Szech'uan.

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FIG. 132.—Oxen and water buffaloes are regularly used for turning the primitive mills.

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FIG. 133.—Ch'ing Rapid on upper Yangtse, with junks waiting to be hauled over.

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period—mirrors, decorated boxes, collections of Buddhist *sutras*, masks used in sacred ceremonies, musical instruments, games, robes, shoes, banners, tapestries, jewelry, glassware, and many other articles. I found at the Shosoin the aged Dr. Matano, then President General of the Imperial Government Museums, but since, I believe, retired, whom I had known in Tokyo. With him was his first assistant, Dr. Tsuda, who spoke English fluently and who described to me most interestingly the various objects and the purposes for which they were meant.

Nowhere else in the world, of course, does such a collection exist. No collection of objects of the early T'ang and preceding dynasties of China is to be found in that country such as this at the ancient Japanese capital. Of early Korean art there is nothing in that peninsula to compare with the examples treasured for nearly twelve hundred years in this plain old log building in the quiet groves of Nara.

Late in September I again went to Korea, where, at Seoul, the capital, I attended the celebration and exhibition in commemoration of the fifth anniversary of the union of the two countries, and also of the completion of the first thousand miles of railroad. The Japanese officials were again most courteous, among other favors providing me with a pass over the entire Korean railway system in order to facilitate my researches. It is scarcely possible to overstate the benefits accruing to the Koreans as a result of the annexation of their country to the Japanese Empire. A little over three hundred years ago Korea was the battlefield over which fought the armies of Japan and China, and of course the country suffered, in much the same way as Germany during the Thirty Years' War of the following century. Now, however, the Japanese are very much more than making up to the Korean people for any past injuries. For the first time the masses of the people have enjoyed the privileges of equitable taxation and justice in the courts. The man who by industry had accumulated a little property no longer goes in daily dread of being tortured to compel him to turn over the lion's share to some idle and corrupt official. The money raised by taxation is spent for the development of the country and not for the enrichment of a worthless court which, through misgovernment, had brought the country to the lowest pitch of degradation. The position of the women has been much improved. Schools have been established. The hillsides have been reforested,

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FIG. 134.—A porter in Szech'uan resting. A usual load is from two to three hundred pounds.

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sanitary precautions have been introduced, railroads and telegraphs extended throughout the country, agriculture improved, the mines and the fisheries developed—in short, the country has, in the almost incredibly short space of five years, been placed upon a modern footing, with every opportunity for the inhabitants to develop themselves and their national resources as freely as they please. To desire a restoration of the former conditions would seem inconceivable as the act of a sane and disinterested mind.

Upon leaving Seoul I was presented by the Government General with two magnificent volumes of plates illustrative of the work that has been done in the study of the archæology of the country, and especially of the ancient graves. That there was a close connection between Japan and Korea from very ancient times is a matter of history; and it is almost certain that this connection was even more close and vital in prehistoric times. The languages of the two countries are closely allied in origin, and this relationship also appears to have existed between the cultures of the two countries even before the introduction of Buddhism and its attendant Chinese civilization. Further archæological work in this area would undoubtedly throw much light upon the problems connected with the origin of the Japanese people.

From Seoul I went on to Peking, paying a brief visit to the Liaotung Peninsula en route, and began making arrangements for a trip into the interior of China. As indicated above, one of the areas which it was particularly desired to study was that of the valley of the upper Yellow River, the earliest seat of the Chinese Empire. I hoped to travel thither direct from Peking, and after concluding my investigations in that region, to proceed on over the mountains into the distant western province of Szech'uan, following the ancient tribute road that connects Lhasa with Peking. Conditions in the region which I wished to visit, however, were so disturbed at that time, and brigandage was so prevalent, that upon the advice of those best in a position to know, I gave up the proposed journey. As an alternative, I decided to go direct to Szech'uan by way of the Yangtse River. It was my very great good fortune, as I was upon the eve of leaving, to form the acquaintance of a young New Zealander, Mr. A. R. Luckie, eleven years in China, and then on the point of leaving for his post in connection with the Government Salt Gabelle, in Szech'uan. We traveled together by rail to Hankow, and thence up the Yangtse, through

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flat, monotonous, alluvial country, to Ichang, at the entrance to the famous Yangtse Gorges. Here we were fortunate enough to secure passage on the little up-river steamer "Shutung," just leaving upon her last trip for the season. Large bodies of disbanded soldiers have been marauding in this region for some time, hence it was considered necessary to tie up every night at a garrison town, and we also carried a guard of soldiers on board. However, we arrived at Chungking, some fourteen hundred miles from the sea, without incident, early in December, and proceeded to make our preparations for going further into the interior. Mr. Luckie aided me with my outfitting, and I found his knowledge of local conditions most helpful. Among other things for which I am indebted to him was his finding me a "boy" to accompany me on my travels. An interpreter is an expensive luxury, which I was able to forego, inasmuch as the "boy" Mr. Luckie hired for me had passed five years upon a British gunboat, and had a very good knowledge of English. Tung, as he was named, proved most faithful and efficient, and it was in large measure due to his loyalty and his ability in managing my other men that I was able to carry on my work in west China in a satisfactory manner.

The two hundred and sixty miles to the provincial capital, Ch'êng-tu, I covered in ten days, traveling in a so-called "four man" chair, that is to say, a chair carried by four men. These carriers do not walk two abreast, as seems to be the prevailing impression, but in single file, the ends of the long chair poles being slung to short carrying poles supported on the men's shoulders. Carried in this way it is quite possible to read, write, or sleep, and the sole drawback is the slowness of the rate of travel. My "boy" Tung traveled in a "three man" chair, and my coolies brought up the rear with the necessary equipment. On account of the disturbed state of the country it was necessary to take an escort of provincial soldiers, but as these traveled for much of the way in wheelbarrows, holding blue cotton parasols over their heads and fanning themselves, while coolie boys, who might be hundreds of yards ahead or behind, carried their rifles and bandoliers, their protective efficacy was problematical. They were necessary, however, for if I had traveled without them, the government could have disclaimed all responsibility in case of an attack by the local banditti.

The country in eastern Szech'uan is variegated, long stretches of flooded rice fields being interspersed with red sandstone hills

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FIG. 135.—Hawking is still practiced in many parts of China.

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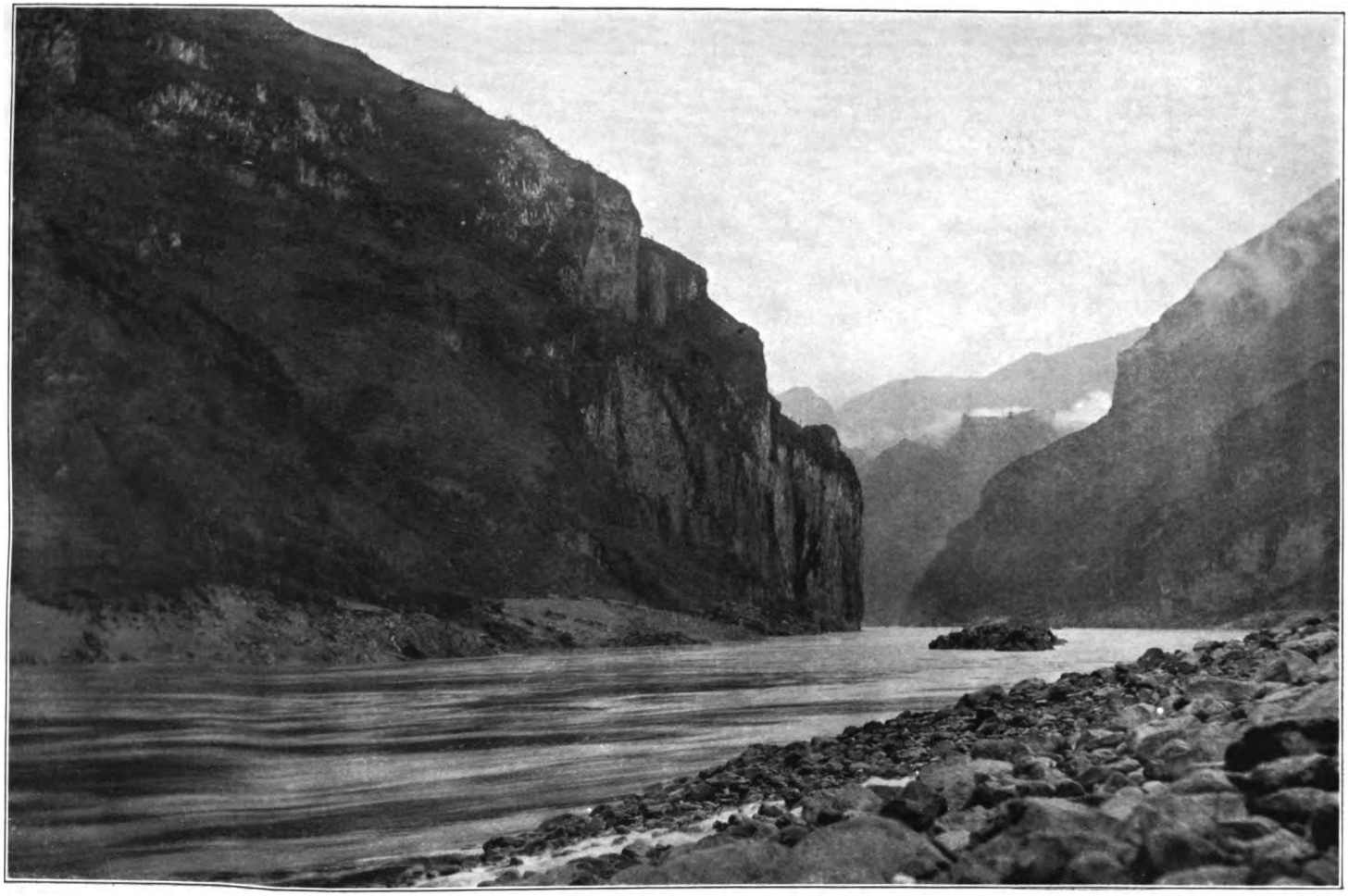

FIG. 136.—Kung Ling Gorge, on upper Yangtse.

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carefully terraced for cultivation. But little ground is lost, save that devoted to graves, clusters of which occur every few hundred feet. It has been customary from ancient times in China to level all graves at the installation of a new dynasty; but the Manchus omitted to do this, and the result is that the surface of China is cumbered with graves dating back in some cases for five hundred years. An incredible amount of the best agricultural land is in this way withdrawn from production.

The Szech'uan farmsteads were distinctly picturesque. Built usually upon some hillside, surrounded by clumps of tall and plume-like bamboos, they form a type characteristic of the region. In general they are one or two stories in height, the external walls, of white plaster, divided into panels by the upright timbers and their horizontal connecting beams. Often the fences about the buildings, the walls of the sheds, and even the nearby trees, would be festooned with sweet potato vines, drying for winter fodder.

The greatest drawback to travel in the interior of China, always excepting the matter of finances, is undoubtedly the foul and uncomfortable condition of the wayside inns. Probably they are no worse than those which travelers in Europe took as a matter of course not so many centuries ago, and their condition will rapidly mend—is mending now, in fact, wherever the country has come much under outside influences. Nevertheless it is still quite the usual thing for the best room, which is invariably located at the opposite end of the courtyard from the front gate, to be situated beside the pigsty, with merely a loose board partition reaching only part way to the roof, to indicate where one apartment ends and the other commences.

It was not long before I began seeing in the sandstone hills here and there examples of the caves which I had come to study. These caves, which are of artificial formation, are attributed by local tradition to the Man-tse, or aboriginal barbarians, and are regarded as having been excavated to serve as dwellings. This portion of Szech'uan, once comprised in the ancient kingdom of Shuh, was, in times preceding the third century B. C., quite outside the sphere of Chinese political influence centering upon the upper Yellow River, and it was only through the conquests effected by the great Ts'in Shih Hwang Ti, the builder of the Great Wall and the founder of the Chinese Empire as we know it today, that this western region became an integral portion of China. The

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FIG. 137.—This pagoda was built about a thousand years ago, and was only recently demolished as unsafe.

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whole section is one of the deepest historical and archæological interest, and will abundantly repay prolonged and intensive study.

Upon my arrival in Ch'êng-tu I at once set to work securing all available information regarding the caves and their former occupants. There is a charming foreign community in Ch'êng-tu, in which both the lay and the missionary element are represented by some of the finest examples of each class that it has been my good fortune to meet anywhere. All with whom I came in contact were most kind and helpful, and if I single out for mention Messrs. W. N. Fergusson and Thomas Torrance, it is simply because these two gentlemen have made special studies of the archæology and ethnology of Szech'uan, and accordingly were particularly well able to afford me the information for which I was seeking.

During my stay in Ch'êng-tu I rode out to Kuan Hsien, some forty miles to the northwest, at the edge of the so-called Tribes Country of western Szech'uan, a region still occupied by the aborigines of western China, hardy mountaineers with a culture of their own which deserves far closer study than has hitherto been given to it. The city of Kuan Hsien marks the point where the Min River bursts forth from the mountains to water the rich Ch'êng-tu basin, and it is here that one of the world's most important irrigation systems is installed. The work, which included the cutting through of a lofty ridge of solid conglomerate and the taming of a hitherto uncontrollable river, was carried out in the reign of the great Shih Hwang Ti, from whom not merely the Great Wall but everything else of consequence in China seems to date. The two men, father and son, who carried out the work are commemorated by a temple erected to them, overlooking the Dragon Pool and the great cutting above mentioned. The river beds are yearly cleaned out at this point, and their banks strengthened with walls and long "snake baskets" of interlaced bamboo, filled with stones and laid side by side in long even ranks. This work was in progress at the time of my visit, and is done, curiously enough, by members of the aboriginal tribes, who appear more expert in stonework than the Chinese. This fact may not be without its significance in connection with the prevalent belief that the famous caves are the work of their ancestors.

Early in January I left Ch'êng-tu and went by chair through the picturesque valley of the Min to the city of Kiating Fu, at the junction with the Ya River. It was in this section, I had been

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informed, that the caves were to be found in the greatest profusion and the most elaborate forms. Here, among others, I met the Rev. A. P. Quirmbach, who, although one of the busiest men in west China, placed his time and one of his saddle horses at my disposal, and devoted two days to guiding me to the more important cave groups of the region. The rock here is of the same soft red sandstone that occurs so widely in the province, and in many places is actually honeycombed with these caves.

The known caves are of course all rifled and their contents either scattered or destroyed by the plunderers. From time to time, however, hitherto unknown ones are coming to light, with their contents undisturbed. These show us that it was customary to bury the dead in stone or earthenware coffins, accompanied by clay images of wives, slaves, and tutelary spirits (if we can interpret as such certain grotesque animal-headed figures). Objects of iron and bronze also occur. "There are besides," to quote Mr. Torrance, "models of houses, cooking pots, boilers, rice steamers, bowls, basins, vases, trays, jars, lamps, musical instruments, dogs, cats, horses, cows, sheep, fowl, ducks, etc." Among other things cash are frequently buried with the corpse. These, of course, together with anything else which can be turned to profit, are at once hypothecated by the grave robbers; and then, with the vandalism which is so noted a trait of the Chinese peasant character, they proceed to smash most thoroughly and systematically everything breakable. As an example of this, Mr. Torrance showed me in Ch'êng-tu in his collection a most beautifully modeled terra-cotta leg and foot, with sandal attached, and beside it something apparently meant for a spearhead. This fragment, he told me, came from a perfect statue, about half life size, found by Chinese peasants and smashed to fragments by them out of sheer perversity.

This state of affairs is quite general over China. There is scarcely a historic monument that has not been wantonly defaced by the very people who should by rights have most closely cherished it. It is this that makes so exasperating the misguided activities of those busybodies who, from motives of self advertisement, have been endeavoring of late years to prevent the gathering for purposes of preservation and scientific study of Chinese archæological specimens.

A careful examination of the caves in the region about Kiating Fu, coupled with the information which I was able to gather from

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FIG. 138.—One of the principal city gates of Kia-ting Fu, on the Min River.

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various sources, suggests three points which might seem to confirm the popular tradition ascribing them to the aborigines. In the first place, the caves are found not only in the portions of Szech'uan occupied by the Chinese, but at least four days' journey into the Tribes Country, in a district wholly occupied by the aborigines, who have maintained their own culture in unbroken continuity from prehistoric times. Secondly, not one of the caves that I saw, and none that I heard of, has any inscription whatsoever having to do with the purpose for which it was excavated. There are, it is true, Chinese inscriptions of relatively late date, recording the visit of important people to some of the larger caves, which were

FIG. 139.—"Elephant's Trunk" and "Dragon Pool" at Kuan Hsien.

even then apparently quite as great curiosities as now; the earliest of these inscriptions that I saw was dated in the northern Sung period, in the year 1078 A. D., and, like many others, was chiseled directly over the ornamentation that had been applied to the wall of the cave by the original excavators. The third line of evidence is that all my Chinese friends to whom I have submitted the photographs which I succeeded in taking have agreed that the style of mural decoration shown was quite unlike anything ever evolved by the Chinese. In this connection, when I showed the same photographs to an American architect, he at once pointed out that the style of ornamentation was based upon a well-developed archi-

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tecture in wood; that the columns and paneling and rafters, utterly functionless in a cave, were evidently the sort of thing to which the cave diggers were accustomed in their ordinary edifices. Certainly no one who was digging out a cave as a dwelling place would think of carving out two elaborately chiseled pillars flanking the entrance. If, on the other hand, he were excavating a place in which to lay away his dead, what would be more natural than to pattern it after the sort of dwelling to which the deceased had been accustomed in life?

The great majority of the caves are simply square tunnels driven into the face of the cliff, usually with the entrances slightly recessed. Between this and the more elaborate ones are all degrees of variation. The largest which I saw consisted of a great ante-

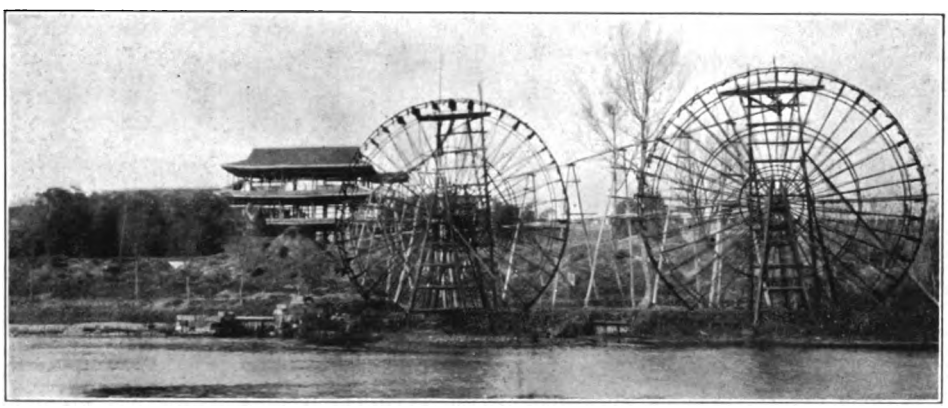

FIG. 140.—Bamboo wheels supplying water to the city of Ch'eng-tu.

chamber, profusely decorated with panelings, running ornamentation, and other designs, and with several tunnels branching off. These tunnels again were in many cases bordered on one or both sides by recesses cut in the rock, as if for the reception of sarcophagi. I have no space for a full discussion of the many interesting details found in the caves; but it is perhaps enough to say that it appears to me that the native tradition is justified in so far as it ascribes the origin of the caves to the old Man-tse, but that they were intended as shelters, not for the living, but for the dead. To their date there is no clue whatsoever, to my present knowledge. It seems certain, however, that they were dug long before the earliest introduction of Buddhism into the region, and probably before the province became Chinese, either politically or culturally. Buddhist

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statues are, it is true, sometimes found in the caves, always, I believe, mutilated by the native Chinese; but these are evidently of far later origin than the caves. In the latter the ornamentation is almost invariably geometric, although animal designs occur, usually in a highly conventionalized form. In one case I found over the mouth of one of the smaller caves a wonderfully well-executed head of a wild ram, about half life-size. At present the more accessible caves are used by the peasantry as granaries, storehouses, and stables for their goats and buffaloes.

It had been my plan to return to the coast after the completion of my work in Szech'uan by way of the province of Yunnan

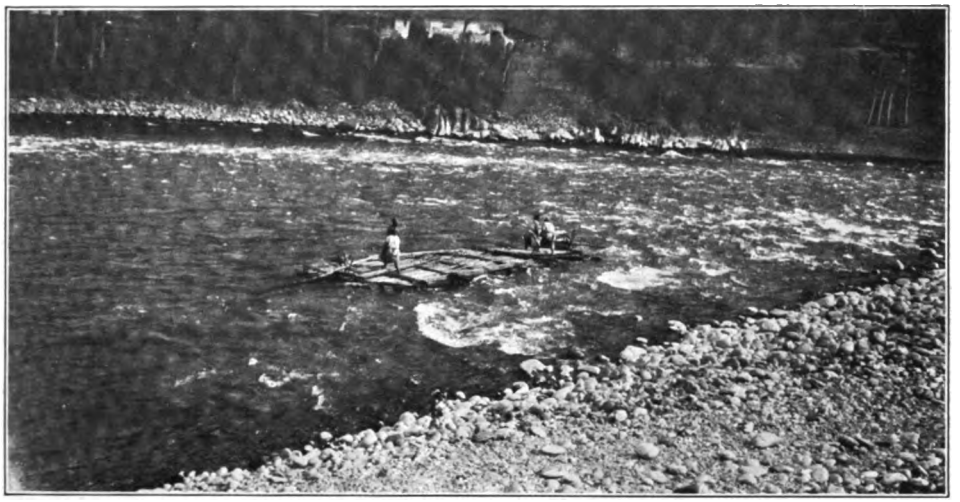

FIG. 141.—Aboriginal tribesmen rafting on upper Min River.

and French Indo-China. The outbreak of the antimonarchical movement in Yunnan, in December, however, caused me to change my plans, and to decide upon returning as I had come, by way of the Yangtse. All the boats along the Min were being commandeered by the provincial authorities in order to rush troops down to meet the insurgents from Yunnan, and it was accordingly with the greatest difficulty that I succeeded in chartering a rotten and leaky old tub that had been refused by the local government as unsafe. Bad omens were not wanting. Before going aboard I saw a floating corpse. I started on the thirteenth of the month. And when I came on board my men hoisted my American flag union down—the immemorial signal of distress and disaster.

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Between Kiating Fu and Chungking, a distance of perhaps four hundred miles, there are at low water seventy-six rapids, and upon the fourth of these I was wrecked. The crew and my military escort promptly jumped ashore as the boat struck the rocks; the great steering sweep and all the oars save two were carried away, and the water began to pour in through several holes in the rotten planking. My boy Tung, however, loyally seconded by my "number two boy," Kung, who had great difficulty in keeping the blood out of his eyes from a bad cut in the forehead, manned the two remaining oars and beached the boat just as she sank, in the slack water at the foot of the rapid.

Eventually we succeeded in patching the boat so that we were able to keep her above water by bailing night and day. Then my crew deserted, on the ground that our craft was unseaworthy (a point in which I heartily concurred with them), so I installed my chair coolies at the oars, and eventually we limped into Chungking, when I was able to remove my clothes and lie down for a good sleep for the first time in eight days.

From Chungking I proceeded down the river to Shanghai, and thence to Hongkong, Canton, and Macao, investigating the possibilities of those places from the collector's standpoint. I then returned direct to Peking, whence, after settling my affairs and bidding farewell to a host of friends, both Chinese and foreign, who had shown me every kindness, and for whom I had come to have feelings of the warmest attachment, I left for Yokohama, sailing thence for Vancouver late in April, just fifteen months after leaving San Francisco on my outward voyage.

C. W. B

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FIG. 142.—Suspension bridge of bamboo cables, western Szech'uan.

FIG. 143.—Mutilated Buddhist carvings in artificial cave near Kiating-fu.

FIG. 144.—Entrance to large artificial cave near Kiating-fu.

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FIG. 145.—Entrances to artificial caves near Kiating-fu, showing exterior decoration.

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FIG. 146.—Caves cut in cliff near Kiating-fu. The slanting lines, meant apparently to receive the gable end of a roof, are much later, and are carried directly across the original ornamentation.

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FIG. 149.—Decorated walls of antechamber in large cave near Kiating-fu, in imitation of wooden architecture.

FIG. 150.—Entrance to tunnel leading from antechamber in large artificial cave near Kiating-fu.

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FIG. 147.—A soft red sandstone is characteristic of a great part of Szech'uan.

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FIG. 148.—A bamboo raft about to shoot the rapids.

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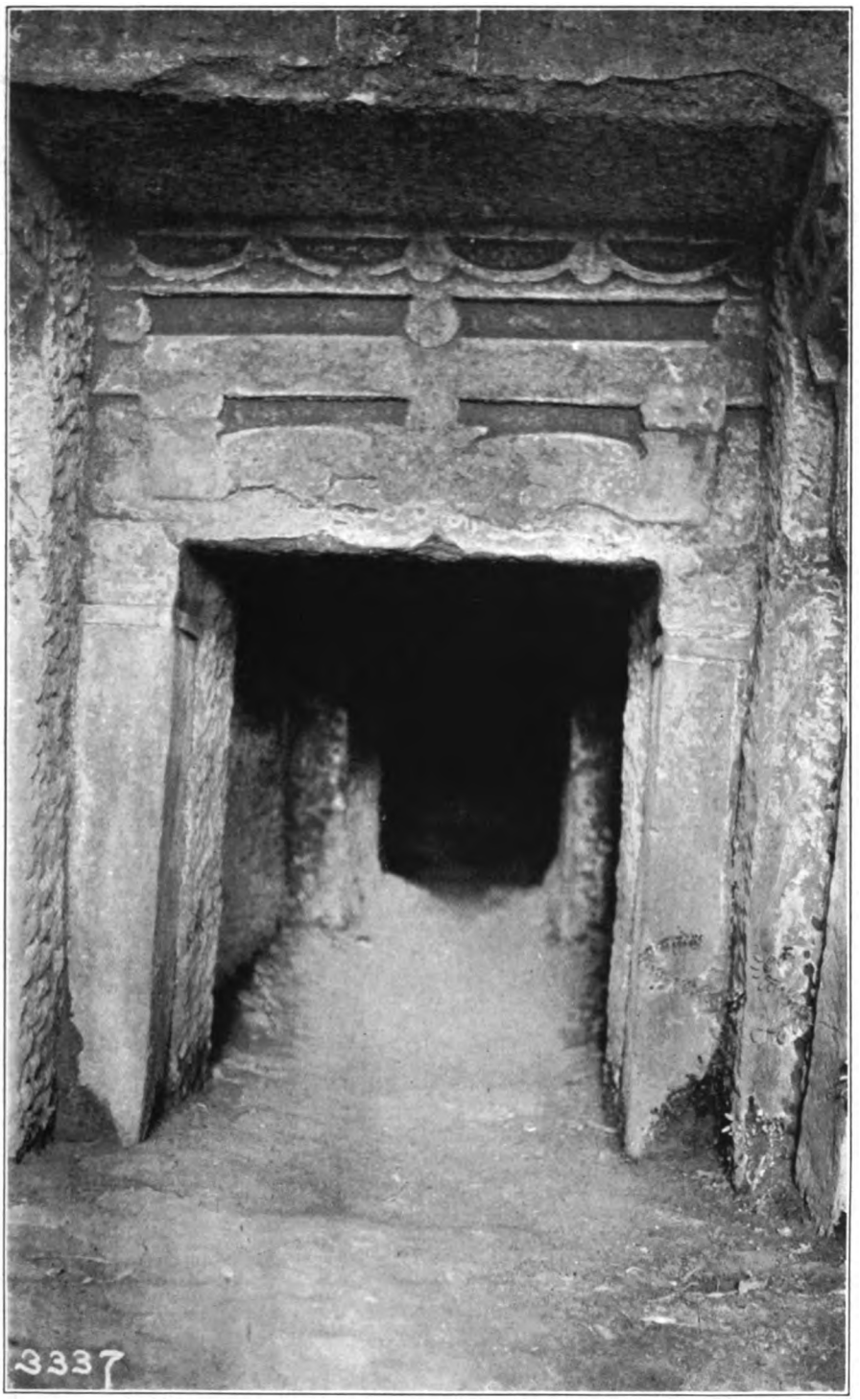

FIG. 151.—Entrance to tunnel leading from antechamber in large artificial cave, Szech'uan.

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FIG. 152.—Scene of Mr. Bishop's shipwreck, on the Min River.

FIG. 153.—Transport junks taking troops up the Yangtse upon the outbreak of the Yunnan revolt.

FIG. 154.—Type of junk on the lower Yangtse.

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WAMPUM

IN studying the culture of the American Indians one is surprised at the many ingenious devices used. Many of the North American tribes used picture writing and some had devised still other methods. The ancient Peruvians used the quipu, on which associated things were recorded by means of knots in different colored strings. A system somewhat similar to this had also been developed among the Iroquois and their neighbors living in the eastern part of the United States. In this system wampum in the form of belts, necklaces or strings was used. The belts were used for recording the more important things, such as treaties, declarations of war or peace, and long journeys. The strings, used as single strands or as a bunch of strands, served for lesser things, such as passports or name of an office, records of laws, and invitations or announcements.

Among the many specimens of wampum in the George G. Heye Collection is one consisting of a small notched stick to which are attached two short strings of white wampum. One string has a single purple bead and both of them have pieces of blue ribbon at their ends. This was carried to the different bands or villages and served as an invitation to the Annual Green Corn Festival. The number of notches on the stick told how many days until the celebration. A similar notched stick having a strand of purple beads ending in a piece of white cloth served as a notice of a meeting of the Tribal Councillors.

At a meeting of these councillors, if it were found necessary to reduce and expel a member for some violation of their law, a bunch of three strands of wampum (Fig. 155 c) was used as the basis of the ceremony of abrogation. First the short strand of alternating white and purple beads was held by some chief who accused the culprit and urged him to reform, or "step back into the path." If this appeal were unsuccessful the long strand mostly of white beads was exposed while a deputation of chiefs urged their brother "to step back into the path." In case this failed the clan elders of the woman clan, called the clan mothers, took the case and while

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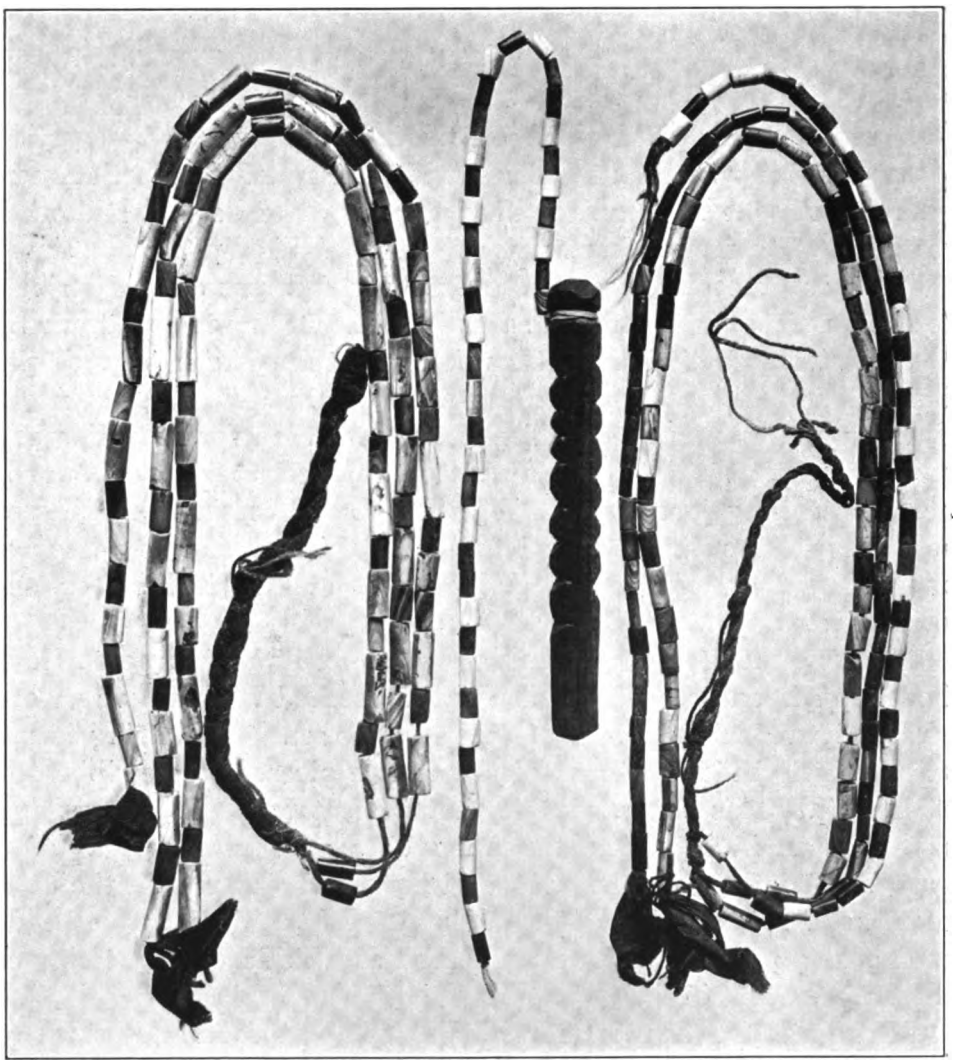

a b c

FIG. 155.—a. Wampum Strands, used in advising parents not to quarrel.
b. Wampum Strand, used as notice of meeting of the tribal council.
c. Wampum Strands, used in abrogating the title of a chief.

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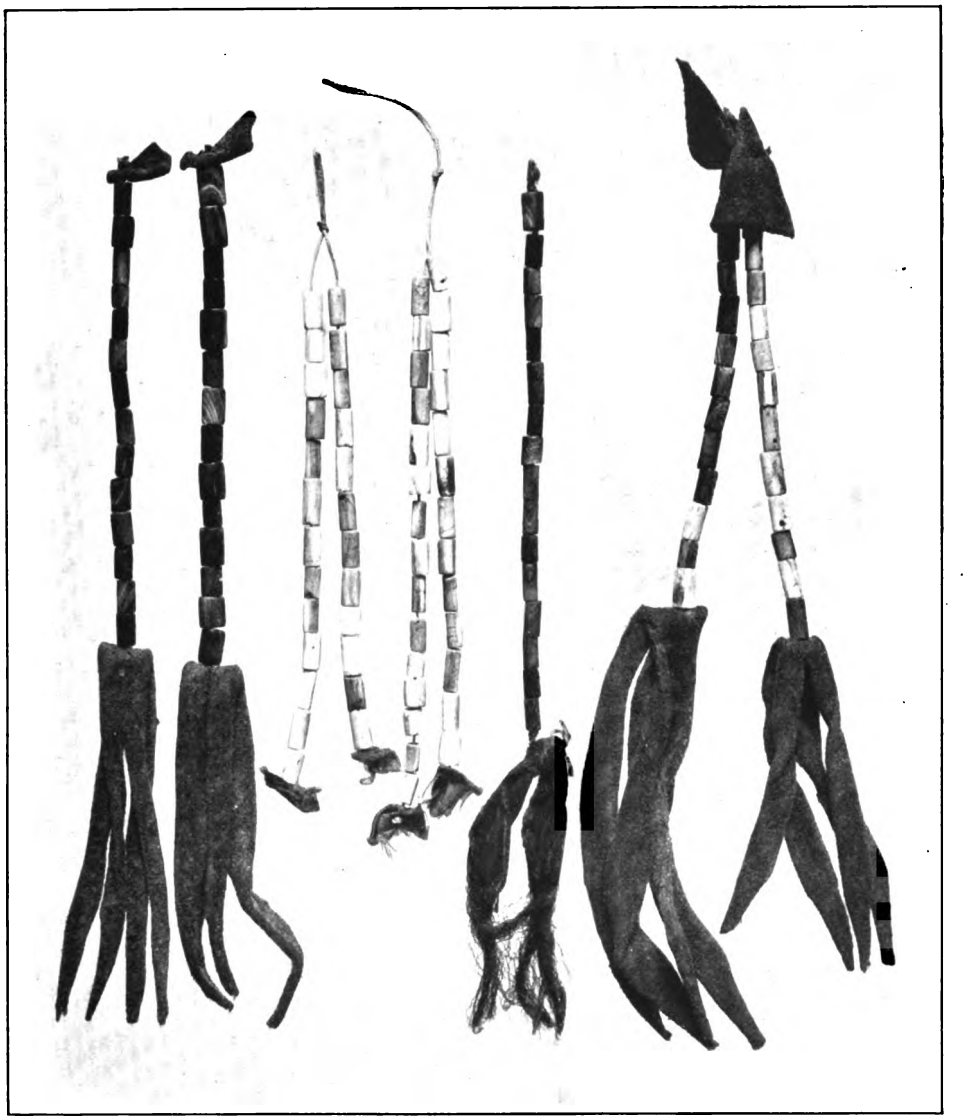

a b c

FIG. 156.—a. Wampum Strands, used to express grief or condolence.
b. Wampum Strands, used as notices of a chief's death.
c. Wampum Strand, records names of a chief and his assistant.

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exposing the third string warned the offender and urged him to repent. This was the final chance for the wrongdoer and if he neglected to take it he was reduced from the rank of chief and his name and office were given to another. As a sign that the chief had been reduced a purple strand containing two white beads was held while some leader announced that it signified total annulment and entire severance of membership. Others of the chiefs held short purple (Fig. 156 a) strands while they expressed sorrow and condolence.

In case of a chief's death three short strings of wampum (Fig. 156 b) were carried about to notify the different bands. One of these strings, which was purple and had a piece of black cloth attached to it, served as a notice of death and mourning. The white strand, with a piece of blue cloth attached, signified that the title and office of the chief would continue, while the white strand, with green cloth, showed that the deceased's name and office would be transferred to his successor. For notifying the chiefs two short purple strands connected by and terminating with pieces of leather were used.

Another specimen (Fig. 155 a) was used by the clan elders or clan mothers to urge husband and wife to agree and live in kindliness, if there had been a family quarrel. The green attached to one of the strands symbolizes the "life" and the importance of their mission as parents. The black attached to the other strands stands for the seriousness of the subject, while the red, which holds the strands together, emphasizes the potency of the warning given to the parents. The long white beads in this specimen are very old and are said to have always been used as in this case, that is in cases pertaining to the relationship of men and women.

In addition to the strings of wampum with their peculiar or little known uses, are the belts and necklaces, which serve especially as the great historical records. The oldest belt in the collection was given by the Hurons to the Iroquois to confirm a treaty in 1612. A purple square in the middle of a white belt serves as the Huron Nation, while purple and white stripes at the ends represent people and peace respectively. The belt is thus interpreted to mean that the people of the two tribes walk together in peace.

Perhaps the most interesting belt historically is the First Penn Treaty Belt (Fig. 157), which was given by William Penn to the assembled chiefs in making his famous treaty in 1682. The two

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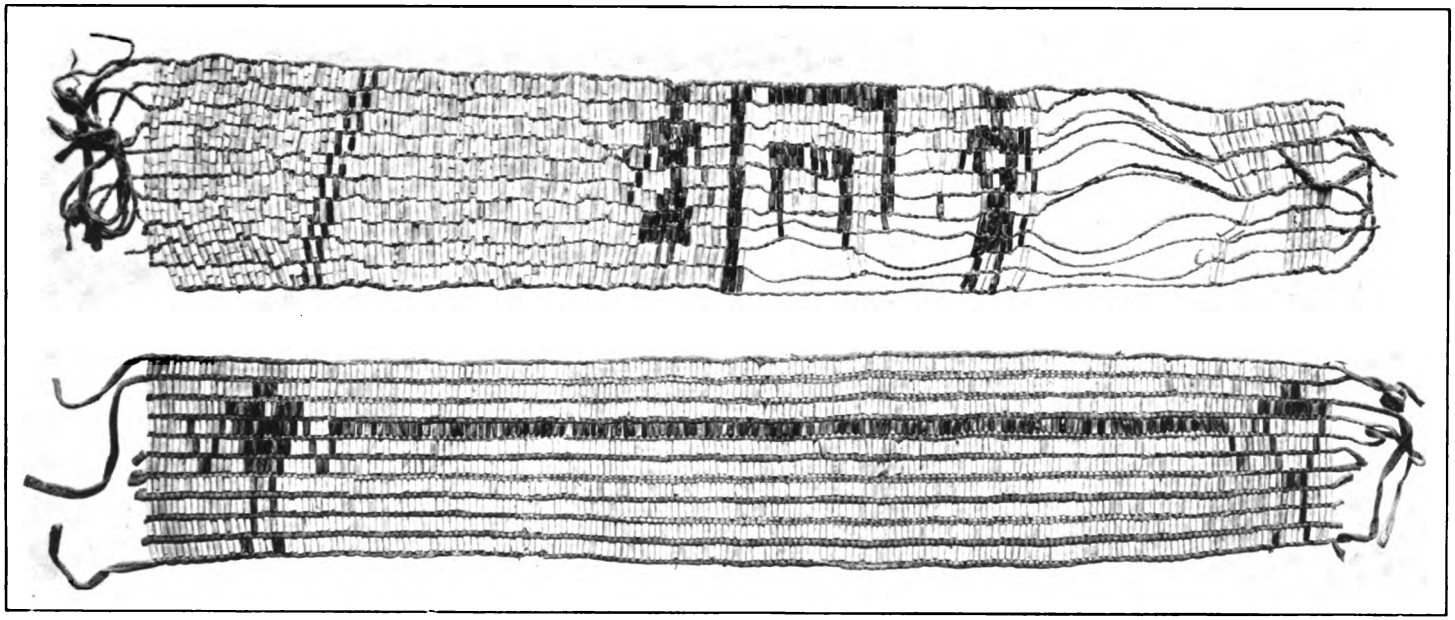

FIG. 157
Upper. First Penn Treaty Belt.
Lower. Governor Denny Belt.

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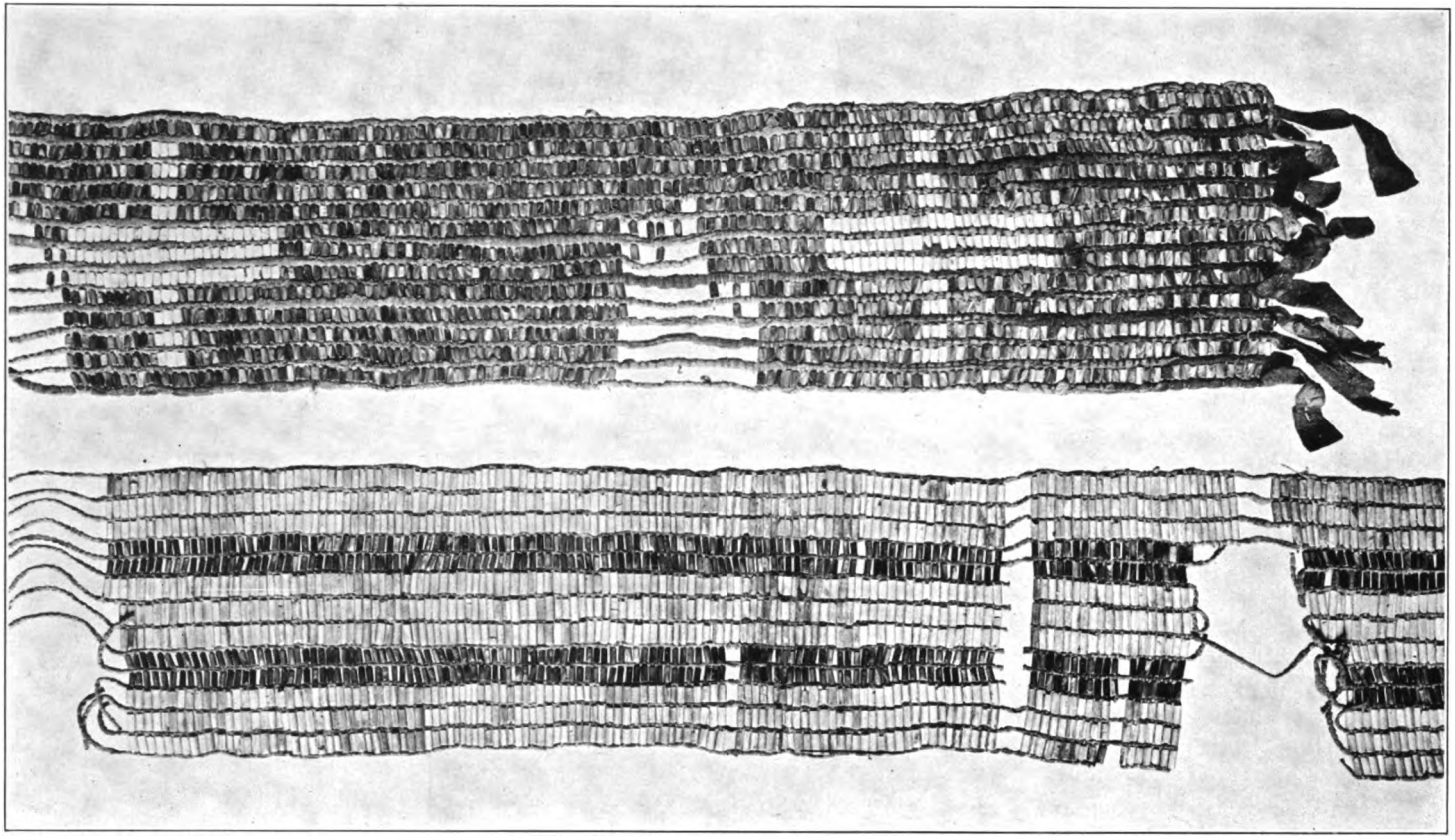

FIG. 158
Upper. Section of Marquette Belt.
Lower. Section of Boundary Commission Belt.

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men are said to represent Penn and an Indian and the diagonal white line signifies that it is the first treaty. Unfortunately this valuable belt has been broken in many places and a number of the beads lost.

Of almost equal interest is a belt (Fig. 158) carried by the great French missionary and explorer, Marquette. While there is little known about this belt or what it stands for, the four white crosses give some hint as to its meaning. Another French belt is purple with two squares and two hexagons in white. This belt was given to the Indians about 1700 to confirm an agreement by which they were to watch and guard the French forts on the coast.

A belt connected with the history of early Pennsylvania is the Gov. Denny Belt (Fig. 157) which was given to the Indians of the upper Ohio River in 1756. The belt represents Governor Denny and an Indian connected by a path when the former invites all of the Indians to come from the Ohio to Philadelphia saying, "I have laid out a nice smooth road for you and want all to come who can."

One of the belts (Fig. 158) in the collection brings to mind the close of the Revolutionary War. It was given to the Indians by the Commission, settling the boundary in 1789, to symbolize the two governments. Two white stripes run the entire length of the belt and show that the Indians "had two roads offered to them. They could go to the British Government or to the United States."

There are also some belts which were used to reveal the wishes or intentions of a tribe or some of its members. A long purple belt with five pair of connected diamonds in white was the War Belt of the Five Nations. For peace the belt was white and had five purple diamonds on it. To express sorrow or condolence a belt all of purple was used.

Many of the rich and important Indians had private belts which have found their way into the collection. Among these is the Capt. Joseph Brant Belt which refers to a journey Brant made to England in 1775. This journey is designated on the belt by a line which connects two squares standing for England and the reservation. Other belts belonged to such chiefs as Red Jacket and Black Hawk.

A belt referring to a journey made by some western Chippewa to George III in 1807 contains the only trace of writing. The date and the initials at the ends of the belt and the pipe and two men

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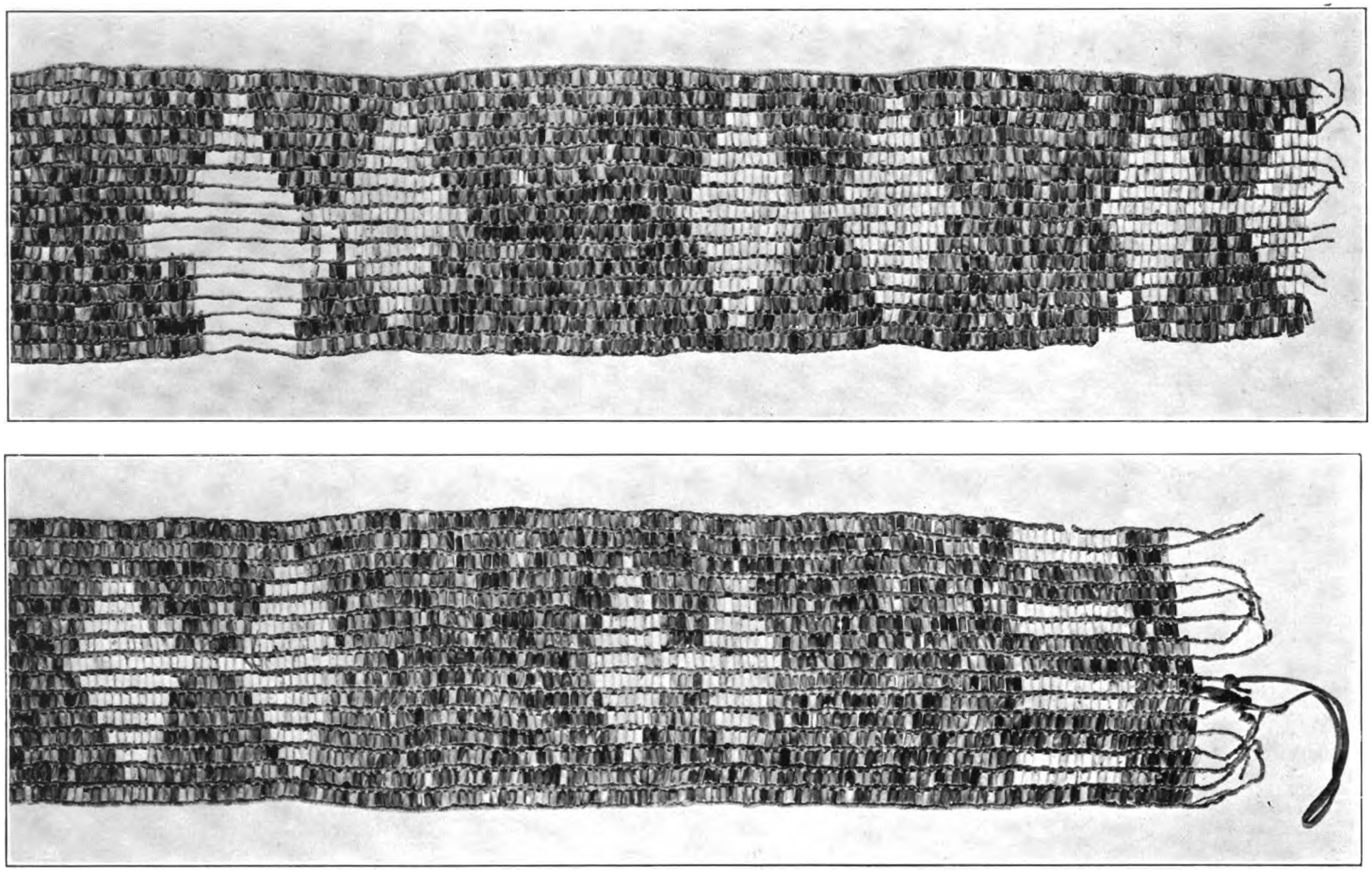

FIG. 159.—War Belt of the Five Nations. Shown in two sections.

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connected by a line readily show that a peaceful journey is recorded.

In addition to many other belts and strings, there are three necklaces, which likewise refer to treaties. One of the necklaces has nine purple sections separated by white lines and commemorates a treaty made among the nine principal tribes of the St. Lawrence drainage area.

B. W. M.

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NOTES

The following gifts have been received since the last JOURNAL went to press.

From Miss Lydia T. Morris, a collection of Roman glass, a collection of coins, an Alaskan ethnological collection, a series of Japanese lacquer shrines, a series of ancient locks and various ethnological specimens.

From Mr. John W. Patten, a Persian copper bowl.

From Miss Ella McCord, a Chinese carved tortoise-shell bowl.

From Col. Richard M. Blatchford, through Mr. George Ross Green, a collection of Indian baskets.

From Dr. J. L. Forwood, in the name of General William H. Forwood, a Crow Indian bow and arrows and a pair of snowshoes.

From Miss Frances P. Lex, ten specimens of Indian beadwork.

From Mrs. William H. Miller, a collection of ancient Peruvian pottery, Tennessee pottery, pottery from the eastern section of the United States, a number of South Sea Island weapons and other ethnological material.

From Dr. John C. Ferguson, a catalogue of Chinese paintings prepared by Dr. Ferguson and describing paintings formerly in his collection and now in the Museum.

The following purchases have been made since the last JOURNAL went to press.

A collection of Chiriqui pottery.

A large Eskimo collection from northern Alaska.

A collection of Tlinkit rattles and other ancient Tlinkit carvings and a miscellaneous American ethnological collection.

A Greek marble torso. This acquisition is described by Dr. Luce in another part of the JOURNAL.

The gift which the Museum has just received from Miss Lydia T. Morris is one of the most important which the Museum has received in many years. The collection of Roman glass, which is large and comprehensive, enables the Museum to exhibit in a very striking way the variety and beauty attained by the Roman glass

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industry. The collection of coins is especially rich in Greek and Roman coins and in coins of the Holy Roman Empire. The Alaskan collection, which was obtained from the Indians many years ago, is of a kind that is no longer procurable.

Each of these collections is to be known as The John Thompson Morris Collection, in memory of Mr. Morris, who, in association with his sister, Miss Lydia T. Morris, the donor, formed these collections during many years.

A detailed description of The John Thompson Morris Collections will be given in a later number of the JOURNAL.

Mr. Carl W. Bishop returned to the Museum on May 15th after fourteen months' absence in Japan and China. Mr. Bishop's personal narrative is to be found in this JOURNAL.

The colored photographs in this JOURNAL, illustrating Mr. Bishop's trip in China, have been prepared from photographs made by Dr. Edgar Thomson Shields, a graduate of the University of Pennsylvania, who, for the past seven years, has devoted himself to medical missionary work in the Province of Szech'uan in West China. The photographs were colored by Miss Marion K. Zane of Philadelphia.

Dr. William Curtis Farabee returned on the 15th of June after three years spent in exploration of the Amazon wilderness. Dr. Farabee has brought with him the bulk of his collections, having already from time to time, as opportunity offered, sent various shipments to the Museum.

The Eckley B. Coxe, Jr., Expedition to Egypt, after a successful campaign at Dendereh, where a cemetery was excavated extending from the earliest dynasties to Roman times, has moved to Memphis to continue the excavation of the Palace of Merneptah which was begun last season.

Mr. Louis V. Shotridge is continuing his work of collecting myths and other data relative to the customs and habits of his own people, the Chilkats, in southeastern Alaska.

Provision has been made for a continuation of the archæological work in New Jersey which was begun last summer. Dr. E. W.

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Hawkes will conduct excavations on sites which have already been located.

Mr. Robert Burkitt is engaged on behalf of the Museum in collecting data relative to the history and traditions of the Kekchi Indians and the other tribes of northern Guatemala. Mr. Burkitt has already sent valuable notes pertaining to the mythology and ancient traditions of this branch of the Maya stock.

The following new members were elected at the meetings of the Board of Managers held on April 21st, May 19th and June 16th.

Sustaining Members: Harry Waln Harrison, Henry Reed Hatfield, Edward J. Lavino, Theodore J. Lewis, Jules E. Mastbaum, Mrs. Orlando Metcalf, J. Kearsley Mitchell, H. A. Poth, Mrs. C. Morton Smith, Mrs. Charles P. Turner.

Annual Members: Joseph Hill Brinton, Francis T. Chambers, Percy M. Chandler, Theodore W. Cramp, Mrs. Theron I. Crane, Mrs. C. George Currie, George F. Deiser, Morris Earle, Theodore N. Ely, Howard S. Graham, Alfred H. Granger, Edward Y. Hartshorne, Daniel L. Hebard, Robert M. Janney, Sidney W. Keith, Mrs. James Large, Ernest Law, Mrs. Edward Bowman Leaf, Mrs. Clifford Lewis, Francis D. Lewis, Mrs. M. L. Ligget, J. Bertram Lippincott, William G. Littleton, Francis V. Lloyd, George H. Lorimer, Joseph S. Lovering, James B. Lucas, Benjamin H. Ludlow, Richard McCall, Mrs. J. Franklin McFadden, Mrs. Norman MacLeod, James T. Magee, Jr., Henry W. Marston, Carl N. Martin, John H. Mason, Mrs. Joseph May, Charles T. Megee, David Milne, John K. Mohr, F. Corlies Morgan, John B. Morgan, Randal Morgan, Lawrence J. Morris, Mrs. John H. Musser, Cushman Newhall, George Bispham Page, Mrs. B. Franklin Rittenhouse, Edward Roberts, Nicholas G. Roosevelt, John P. B. Sinkler, J. F. Shaperkotter, Thomas D. Smith, Isaac Starr, J. Walter Steel, Henry Tatnall, H. Evan Taylor.

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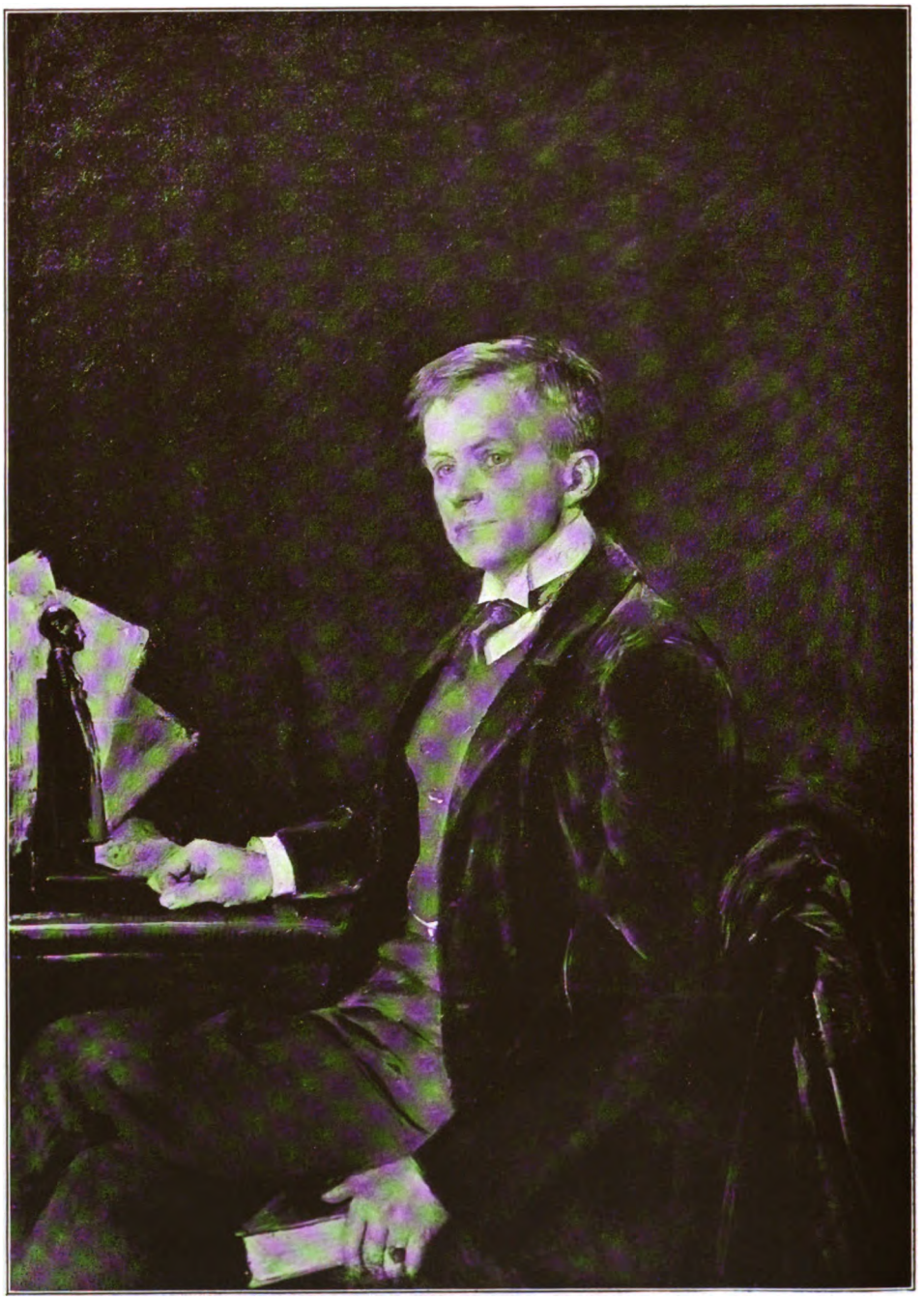

From a Painting by Adolphe Borie.

ECKLEY BRINTON COXE, JUNIOR,
PRESIDENT OF THE MUSEUM, 1910–1916.

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THE
MUSEUM JOURNAL

VOL. VII PHILADELPHIA, SEPTEMBER, 1916 No. 3

ECKLEY BRINTON COXE, JUNIOR

AT the moment of being put to press, this issue of the JOURNAL has been held back owing to the death, on the morning of September 20th, of the President, Mr. Eckley Brinton Coxe, Junior. Though this blow was not unexpected, we were not in any sense prepared for it.

Mr. Coxe was born in 1872 in Philadelphia. When he was less than a year old his father, Mr. Charles Brinton Coxe, died in Egypt. This event, with the circumstances attending it, was not without its effect in shaping the son's inclinations and achievements. Between the time when he was twenty-one and the time of his death, he made many journeys in Egypt and his taste for Egyptology grew with his personal knowledge of the ruins in the Nile valley. In 1904, after the Soudan had been reconquered from the Dervishes and made accessible to Europeans, he traveled through that country and visited Khartoum. During this journey he saw for the first time evidences of an ancient and unknown civilization which he was later to be instrumental in bringing to light.

In 1907 the Eckley B. Coxe, Junior, Expedition to Nubia was sent out by the Museum. Excavations were conducted at several points during a period of four years under the immediate charge of Dr. D. Randall-MacIver. The results of this expedition and of the publications based thereon were to give the world its first knowledge of an extinct civilization that had flourished in ancient Nubia, and to place in the Museum a fine collection illustrative of that civilization. At the time when that collection was first exhibited it was the only one of its kind in existence. Since that time other museums, guided by the work of the Coxe Expedition, have acquired

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similar collections, and thus the old Nubian culture, with its paintings and sculptures and inscriptions, has been made widely known.

At the beginning of 1915 the Eckley B. Coxe, Junior, Expedition to Egypt went out from the Museum. Important concessions were granted to this expedition by the Egyptian government, a strong and efficient organization was formed for the purpose of working these concessions in the interest of science and of the Museum. This organization, with a splendid record of discovery already to its credit, was in full working order at the time of Mr. Coxe's death. The latest report from Mr. Fisher, written at the Ruins of Memphis and received the day before his death, lay under his pillow when he died.

In the field operations of this Egyptian work, as well as in its scientific bearings, Mr. Coxe took a deep personal interest. He visited the excavations in Egypt and Nubia, he followed closely the doings of the expeditions that bore his name and he understood thoroughly the historical significance of the discoveries that were made under these liberal auspices.

In 1910 he was elected President of the Board of Managers of the Museum, a post which he held till the time of his death.

Mr. Coxe's interests in the Museum were by no means confined to the Egyptian Expeditions. That particular interest may indeed be taken as typical of his larger participation in all of its activities. He entered into its labors with zeal, he shared its trials with a cheerful spirit and he rejoiced with a heartfelt pride in the successful issue of its enterprises. In each person connected with its work he showed at all times the warmest personal interest, and by his fine sensibilities he won the affections of everyone.

An Appreciation by Charles Custis Harrison Spoken at a Special Meeting of the Museum Board Called on September 21st

We all know the object which has brought our Board together. In one of the last letters which Mr. Coxe wrote, and of which I spoke at the meeting of the Museum Board on Friday, he confessed for the first time to feeling ill. He asked me if I would explain the reason of his absence, and, as usual in the rare cases of his absence, if I would preside in his place.

After talking with Mr. Newbold and Dr. Gordon yesterday, it

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was concluded to hold a meeting today for the purpose of expressing the feelings of our Board at his death. It could hardly be said to be unexpected. He was President of the Board, and it is very rarely that a president had such close personal relations as Mr. Coxe had with many members of the Board. Mr. Newbold was a friend of many years, he was a friend of Dr. Gordon, he was a classmate of Mr. George L. Harrison, Jr., a kinsman of Mr. Cadwalader, and his father was a college classmate of mine. I had known Mr. Eckley B. Coxe, Jr., since 1893.

There are several points in his character to which I would like to refer. To my mind the two or three high qualities which Mr. Coxe had were that he took some time to arrive at a decision, but when he arrived at that decision it was a generous and just decision of a gentleman. The second quality which always impressed me was not so much the magnitude of his charities, for he was really one of the most generous citizens in Philadelphia, but it was the quiet way in which these large gifts were made, for he never wanted them to be known. In many of his large gifts to the University Museum, no one but the Treasurer or Assistant Treasurer knew that these gifts had been made by him.

I can say that Mr. Coxe was not only a fine gentleman, but a noble and generous citizen to this entire community.

The third quality was his devotion to his home and to those who surrounded him, especially to his mother, and the purity and cleanness of his entire life. In looking around in our community, I do not know where we are to find a person who in two of these regards, the justice and generosity of his decisions, his magnanimous and generous gifts as a citizen, and the quietness with which these gifts were made, can take Mr. Coxe's place.

A Tribute from John Cadwalader

The recent death of Eckley B. Coxe, Jr., at his home in Drifton, at the age of forty-four years, has given occasion for the following account and estimate of his career.

Eckley B. Coxe, Jr., sustained the name and usefulness of one of the most distinguished families that this country has produced. Dr. Daniel Coxe, of London, from whom he was directly descended, was in 1678 the proprietor of West New Jersey and of Carolana, which included all the territory between N. Latitude 31st to 36th

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parallels, and prepared the first general plan for a union of the colonies.

Tench Coxe, the great-grandfather, at the age of thirty-three was a member of the Continental Congress, Assistant Secretary of the Treasury to Alexander Hamilton in 1789, filled many important posts until his death in 1824, and it was said of him that he "was never forgetful of the duty of exerting his peculiar talents for the good of his country." The grandfather, Charles S. Coxe, was a judge of the District Court, noted for its eminent judges, and rendered, among others, a most important decision relating to the privileges of consular as distinguished from diplomatic officials recognized generally by writers on international law.

His father, Major Charles Brinton Coxe, was the youngest of the five sons of Judge Coxe, all of whom were men of unusual force of character and distinction. The eldest, Brinton Coxe, was one of the most learned lawyers of his day, as shown in his work on Bracton and his unfinished analysis of the Constitution of the United States.

Eckley B. Coxe, after whom his nephew was named, was the most eminent mining engineer this country has produced, and held a very important position in the state, politically, and as the head of the firm of Coxe Brothers & Co., who operated the great anthracite coal fields owned by the Coxe family.

Charles B. Coxe, the father, was a scholar of a high order, having taken the highest rank in the University of Pennsylvania in the class of 1862, that included many of our most successful citizens, among them two provosts of the University.

His services in the army, having been Major of the Sixth Pennsylvania Cavalry, the only lancer regiment, were most conspicuous for bravery and unselfish devotion. He was equally popular with his fellow officers and men. Several of those in his company were long in the service of Coxe Brothers & Co., of which Charles Coxe was a member.

Eckley B. Coxe, Jr., though not of vigorous frame, was full of determined energy and untiring in any work he undertook. Unlike many young men of independent means, he had but one object in life, which was to be useful, following the example of his great-grandfather. His father, having died in Egypt, his son had always felt a deep interest in that land of the earliest civilization. Growing out of this interest, he became connected with the Museum

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of the University of Pennsylvania, and secured for it the result of the exploring expeditions which he entirely supported under concessions granted by the Egyptian government. Few persons understand to what extent this great department of the University has been dependent upon the liberality and generosity of a very few persons.

Mr. Coxe became President of the Board of the Museum, and had practically met the large annual outlay necessary to maintaining its work. This had been in addition to sustaining the expeditions and meeting the cost of the valuable publications constantly issued. Mr. Coxe did not limit his interest to these educational fields, but every charitable movement appealed to him.

The Children's Hospital, the College of Physicians, the Orthopedic Hospital, many fields of work in aid of the miners and their families in the anthracite coal region, and the Episcopal Diocese of Central Pennsylvania are only some of those that could be mentioned to which he has contributed on a very large scale.

There was a quiet, dignified reserve, with a gentleness of character, in Eckley Coxe rarely met with. Firm and decided wherever he had a positive view, it was always a pleasure to him to meet the wishes of those who appealed to him.

His generosity was not measured; but was indulged for the benefit of others, with little thought of himself. The concentration of wealth in the hands of such a man is productive of more good to the community than any possible distribution among many could produce.

His life was spent for the benefit of others, and he maintained a reputation without a blemish. To those who learned to appreciate his generous thought and to his immediate family his loss is irreparable.

He showed the value of inherited worth, and did not fail to sustain in every way what might have been expected of him.

Resolution Adopted by the Board of Managers at the Special Meeting Held on September 21st

The impulse that has brought us together is the common sorrow which we, as members of the Board of Managers, feel in the sad and untimely death of our President, Mr. Eckley Brinton Coxe, Junior. Our association with him has been a very pleasant and a

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very helpful one to each and all of us; its sudden ending brings with it a sense of loss much greater than we can express. It was an association that appealed with special force to Mr. Coxe's generous nature and that engaged, on the part of his associates, the utmost loyalty and devotion to him whose purposes were wholly benevolent.

Without selfish interests or occupations, Mr. Coxe was devoted to the public service with his whole strength and with every means in his power. Though his self-imposed duties were so modestly and quietly performed that many of them remain unknown, some of his benefactions have been made conspicuous by their results, for their very magnitude brought them under general observation.

Among the public establishments which owe their successful existence in no small measure to his generosity and zeal, the University Museum occupied a favored place in the foreground of his thought.

The Museum was to him a great and vital interest. His heart was in it and he gave it his best energies. Its work appealed to his tastes and engaged his warmest sympathies. In all of its activities he took a deep personal interest and he was at all times its chief benefactor.

As President of the Museum he discharged the duties of his office with a rare sense of responsibility, and his devotion was such that even during the later days of his failing strength he continued to attend to its affairs with the utmost regularity and without complaint. His quiet determination enabled him to overcome many difficulties in the performance of these duties, and his modest patience made it possible for him to endure burdens that might have been too much for men of stronger mould.

Always firm in what he felt to be right, his nature was one of singular sweetness and gentleness. Strong and faithful in his friendships, considerate and thoughtful in all of his relations, his disposition was to be helpful to all, and in the exercise of that generous faculty, combined with a sweet filial devotion, he found his greatest comfort in life.

We cannot restore his loss and no action that we could take would lessen our sense of that loss, but we can and do hereby record our appreciation and esteem. And while we make this record of our feelings, we are moved to convey to Mr. Coxe's family an expression of a genuine sympathy for them in their sorrow.

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SOME PROBLEMS OF MUSEUM DEVELOPMENT

IT has sometimes been said that the ideal museum should contain everything. This is impractical even if it is not a fallacy to start with. Attempts have been made to classify museums into Museums of Art and Museums of Science, but these definitions break down under the complex conditions that govern their growth. Even in the modern picture gallery, some measure of scientific intelligence must be applied to make the collection illustrate the history of painting.

Apart from the Picture Gallery stands the Arts Museum, and apart from both stands the Natural History Museum. Efforts that have been made to combine all three have failed for very practical reasons, and there is no reason at all why they should be combined.

Even within these several fields it is necessary in actual practice to effect further specialization and restriction. In the Arts Museum, for instance, which aims to illustrate the history of all the arts, it is found necessary to confine the collections to the closed or closing episodes in that history and to exclude the modern products that supply the markets of the world at the present day.

As a matter of fact, very few museums would fit entirely into any rigid system of classification. Each one has its scope determined by arbitrary choice or the conditions of foundation or some set of fortuitous circumstances peculiar to its own experience. It does not matter much, so long as the scope is definite and so long as it establishes the identity of the museum with reference to its chosen field of labor.

One of the first essentials of successful museum administration is the necessity for a clearly defined field, within which the museum confines its operations and develops its legitimate activities. The result of this principle is to give direction to its efforts, coördinate its forces and crystallize its collections around a central idea. The boundaries thus prescribed, when once they have been drawn, may not be crossed without the risk of disorganization. It becomes a duty of each museum, therefore, in order to preserve its identity, to rigor-

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ously reject all collections, no matter how excellent or desirable they may be in their places, which do not belong within its own legitimate field of endeavor.

The University Museum, recognizing this necessity, has established the identity of its interests. Its business is to illustrate by its exhibits the great truths in the History of the Arts. Its ultimate purpose is to give a practical demonstration of the Arts and of their place in the History of Mankind. Since that part has been nothing less than to furnish the framework of the structure called civilization, the message thus conveyed and the knowledge thus imparted are fundamental needs of practical education and a necessary basis for the further progress of civilization itself. How to make that message clear and certain of appeal and how to make that knowledge general are problems that the leading museums are called upon to solve.

In order to be in a position to meet these issues a museum must not only be able to procure collections, but it must know how to develop its collections for the practical purposes of education; it must not only be able to install its exhibits in a building adequate to their proper display, but it must spread a knowledge of these exhibits and their uses abroad among the people. Again, it is not sufficient that a museum should care for its collections and maintain them at the highest point of efficiency as a means to an end; it must nourish these collections into life and promote their growth by adding to them continuously and unremittingly. A museum that does all these things is a healthy museum; unless it is capable of doing all these things, although it may possess priceless treasures, it is a dead museum.

Another duty which pertains to a museum of the arts is to provide a standard by which people who enjoy the means of possessing beautiful things may be guided in their efforts to decorate their homes or to assemble collections. Private collections sometimes become public property through the museums and it is a duty of these museums to promote good taste and proper standards in the formation of such collections and to decline to receive them when they fall short of these standards. For the attainment of this purpose, it is a vital necessity for each museum in assembling its collections to reject all objects that do not rise to a well-defined standard of excellence. With this end in view each museum must define its standards, and, once defined, these standards should be defended without compromise against all assaults.

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When a museum has reached that stage of its growth where these principles are recognized in its regular activities, it is in a position to meet an issue of paramount importance and to face one of the most serious problems with which each museum has to deal in the exercise of its educational function. Upon the solution of that problem the measure of its usefulness in the community will largely depend. It is very doubtful whether any existing museum is yet sufficiently far advanced to have met this issue with a clear appreciation or with an entirely hopeful outlook. Certainly none has yet found a complete solution of the problem which is involved.

One of the great needs of all museums of the arts is to give color to their exhibits and to disclose the living thought that abides in all the works of man. One of our most important tasks is to impart to our exhibition halls an atmosphere in which the visitor may feel the warmth of human associations and in which he is carried in a sympathetic mood from one living impression to another.

The great defect from which the modern museum is still suffering, marring its work and hampering its usefulness, lies in its apparent inability to provide this atmosphere. With few exceptions its halls are depressing to the spirit and mortifying to the flesh. Its exhibits, though made up of precious things, are too often inert and barren. Frequently one would suppose that the purpose of such collections is to call attention to the poverty of man's achievement and to emphasize the futility of human endeavor. On the other hand, that the reformation that this condition calls for is already under way and that museum directors are seeking a solution of the problem, is shown by the improved conditions that are now to be found in some of the more recent installations.

In its later constructive activity and in the plans that have been laid down for its further expansion, the University Museum has taken a step in advance, a step that contemplates a new and consistent scheme for giving life and character to its exhibits and surrounding them with an atmosphere through which the visitor may receive from these works of human hands the message and the inspiration which it is their mission to impart.

The first decided step in this new movement was taken when all of the cases and their exhibits were removed from the room at the right of the head of the stairs. Here an opportunity presented itself a few years ago of demonstrating the meaning and the value of good

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installation, and when the new exhibits were installed in that room they furnished such a demonstration.

No really adequate opportunity presented itself, however, for an ideal installation until the new wing was finished at the end of 1915. The Charles Custis Harrison Hall furnished a noble opportunity for an ideal display with its artistic setting, its appropriate atmosphere and its harmonious composition.

It should be borne in mind that in working out the plans for the building of this very excellent hall we had in view the general character and composition of the display which was afterwards installed. The success of this installation is due first to the architecture of the hall itself, second to the division of the floor space by simple and inexpensive structures appropriate to the units of exhibition, and third to the ample space and the harmonious arrangement which attend the exhibition itself. The net result is a unique and a happy demonstration of the value of a carefully conceived constructive process which combines good architecture, well-balanced installation and a proper atmosphere.

To say that the exhibition in Harrison Hall leaves nothing to be desired would not be altogether true, but such defects as are to be found in it are the result of conditions which could not be controlled. These defects have nothing to do with the contents of the hall nor to the quantity of light, but to the direction of the light, and this in turn is due to the orientation of the building, which faces the north.

Since the illumination of the hall is therefore directed towards the entrance, the visitor faces the light on entering the hall and faces the illuminated side of things when he is looking towards the entrance from the interior. Important objects which under reversed lighting conditions would be placed in central positions facing the entrance are necessarily placed facing in the opposite direction and the central space is occupied by things that can be lighted from above and that do not obstruct the impressive view that can be obtained of the exhibit opposite the entrance. In the installation in Harrison Hall, as well as in its architecture, some very interesting problems have been approached in a way that gives encouraging results. Other problems equally important remain to be worked out in the further development of the building plan and of the exhibits.

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ORIENTAL ART IN THE UNIVERSITY MUSEUM

THE University Museum has on exhibition a collection representing the art of the Far East, which, though not as large as certain collections elsewhere, is exceedingly choice. Indeed, apart from the British Museum, I do not know of any other museum which can boast of such exceptionally good things.

Foremost among these treasures must be placed the seated pottery figure of "the Lo-han," belonging to the T'ang period (A. D. 618–907), which is worthy of being set by the side of the companion figure in the British Museum—the finest specimen of art which has as yet come to us from the Far East.

Equally worthy of mark is the early life-size figure of a Buddha in stone (No. 7, see Fig. 171) which is not only an object of classical beauty but is interesting as a witness to the influence exerted by the Hellenistic art of Bactria, working through the Buddhistic artists of the so-called Gandhara period of India, upon the art of China in the T'ang era. Similar witness is borne by the two splendid terra-cotta figures of horses (see Fig. 166) from the T'ang tombs. The stone figures 8 and 9 (see Fig. 170) again are splendid examples of what may be termed the Indian element in Buddhistic art. They belong to a class which must have served as models for some of the early carved figures of Japan.

Among the pottery are a very interesting model of a house of the Han period (B. C. 206–A. D. 221), two metal-rimmed "hare's fur" bowls of Sung chien-yao or "chien ware," which were specially prized by the Japanese for their tea ceremony, one or two delightful specimens of Sung and Yuan "chün" ware of turquoise color with purple tinge, and above all, some exceptionally rare and beautiful examples of Ming pottery. There are for instance three great fish-bowls, one of them being the imperial yellow bowl (No. 333) in the center of the hall, with embossed dragons crawling around it, while another (No. 330) is decorated with large blue lotuses on an aubergine ground. I know of no other fish-bowl of the same size comparable with these.

The late Ming blue and purple vases and figures are, however, the "cream" of the pottery collection. No. 319, with its white cranes and blue flowers on an aubergine ground, is superb, and so

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too are the three large jars and three figures which stand in a case by themselves. The two turquoise blue wall-panels, with a cart embossed on the one and a rider upon a horse on the other, are unique.

The porcelain is equally choice. The late Ming fish-bowls and tall vase (Nos. 320, 321, 326) are among the finest specimens of Ming porcelain now existing, and the blue and white vase (No. 323) in the same case, is almost equally remarkable. So, too, are the large Ming polychrome vases Nos. 327, 328.

There is a very beautiful collection of monochromes; indeed it is difficult to conceive of anything better in the way of a Chinese monochrome of the Ching period than the peach-bloom vase No. 113, or the black vase No. 144. The "Sang-de-boeuf" vases Nos. 121, 128 and the blue vase No. 139 call also for special notice. The "blue and white" too is very choice. Besides the Ming example No. 329, there are some exquisite specimens of the Kang-hsi period (Nos. 22, 34, 51, 56, etc.). Among the "powder-blue" pieces Nos. 77 and 78 are "things of delight." And there are two vases with black ground which would be the envy of the connoisseur.

Like the celadons, the famille verte or green family of the Kang-hsi period is well represented. The two great vases No. 307 are particularly noticeable, and there are two very fine vases, Nos. 310, 311 as well as a figure (No. 254) and a head-rest (No. 290) which take high rank. An extremely good example of the late Ming period in this class of decoration is No. 312.

To the Yung-chen period (A. D. 1723–36) belongs a fine vase (No. 229) and there is a large collection of "egg-shell" china plates of the so-called famille rose class. Personally I do not admire them or the color which distinguishes them and is known to the Chinese under the name of "the foreign color." They were for the most part decorated in the neighborhood of Canton under foreign influence. But for those who admire such things the collection is remarkably good.

The paintings are even better than the porcelain. The number of first-class and well-preserved paintings of the Sung period is astonishing and they give a high idea of the pictorial art of the epoch. One of them, representing a hare at the foot of a tree on which a bird is resting, is the most charming specimen of Sung painting that I have seen.

About Chinese bronzes I do not venture to speak, but I cannot

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refrain from drawing attention to the magnificent Ming screen at the end of the hall. It is hardly to be matched.

The collection of Persian ware in the Museum is quite as choice as the Chinese collection. The pottery of the thirteenth and previous centuries which is exhibited is extraordinarily good. Every piece is first class, and some of the pieces are unique. We may form some idea from them of the marvelous beauty and rich tone of the pottery that is now being recovered from the tombs of medieval Persia.

A. H. SAYCE.

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NOTES ON CHINESE STATUARY

IT would perhaps be too much to say that but for the Buddhist faith there would have been no art of sculpture in China. The fact remains, nevertheless, that that art is the direct offspring of the magnificent and richly developed Indian iconography which Buddhism had adopted and adapted as the fitting vehicle for the material expression of its beliefs, and which Buddhist missionaries brought to China in the early centuries of our era.

Buddhism seems first to have been heard of by the Chinese during the second century B. C., or possibly toward the end of the preceding century. Its official introduction, however, under the imperial patronage, did not occur until the reign of Ming Ti (A. D. 58–76), second emperor of the Eastern, or Latter, Han dynasty. This ruler is reported to have seen in a vision a golden man of supernatural proportions, with a halo, and holding in his hand two arrows. Upon relating his dream, the emperor was informed that the personage could be none other than Fo (Buddha), the great spiritual ruler of the west. The interpretation may have been influenced by the fact that the Chinese ideograph for Buddha is composed of the symbols for "man" and "a bow with two arrows." Be that as it may, a mission of inquiry was sent to the west, to return a few years later (A. D. 67), bringing back sacred books and images and, more important still, two Buddhist priests to propagate the new faith. A long time was to elapse, however, before any marked effect was produced upon the art of China.

The latter days of the Han were evil, and the dynasty came to a bloody end in A. D. 221. There followed for China a period of four hundred years which are in many ways the saddest in all her history. For a great part of this period the country was divided into a north, under the domination of Tartar conquerors, and a south, ruled by native Chinese princes; but in all sections of the country there was incessant fighting, the setting up of ephemeral dynasties and their overthrow ere they had become established—a period of ceaseless turmoil and bloodshed and terrible suffering on the part of the common people. Nevertheless it was during this epoch that the Buddhist faith spread over practically the whole country, unchecked by the

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prevailing anarchy, or perhaps even aided by it; for doubtless many an unfortunate was glad to seek refuge in the peace and quiet of the Buddhist monastic establishments.

No authentic remains of the sculpture of this period have come down to us. We know, however, that stone statues were executed and that work was done in bronze, but that wood, particularly sandalwood, was the material most commonly employed for purposes of sculpture.

Toward the beginning of the fifth century we reach somewhat firmer ground. That commencing about this time colossal works in bronze were executed in China, there is no doubt; but these have long since disappeared utterly, destroyed in the course of the long series of wars and rebellions and foreign invasions to which China has been constantly subject. The statuary in wood, being even more perishable than that of bronze, is likewise lost. Some day, no doubt, scientific excavation of ancient sites will reveal specimens of the lost art of this most interesting period. Until then we must be content to study it through the medium of references in Chinese literature and with the help of a few examples in stone which have survived to the present day.

Before entering upon a discussion of the examples of the Chinese Buddhist statuary of this and later periods now in the possession of the University Museum it may be worth while to attempt a brief outline of the nature and purpose of Buddhist iconography in general.

In the first place, in marked contrast to the dynamic quality so marked in the cognate Hindu art, the art of Buddhism is essentially static in character. The various personages are shown in attitudes indicative of the utmost tranquillity and repose. Most of those figures in Buddhist art which are represented in postures of struggle and stress are Deva kings, wind gods, thunder gods and the like, belonging rather to the realm of folklore than to that of true Buddhist thought.

Again, it is very rarely that mere physical beauty and bodily strength are exalted. The Buddhist artist looked upon his creations purely as vehicles for the transmission of the truths of a holy and living faith, in which he himself believed with his whole soul. His art was therefore essentially idealistic, mystic, symbolic and transcendental, in marked contrast to the more naturalistic and imitative art to which we of the Occident have grown accustomed.

Another very characteristic trait of the best Buddhist art is the

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total lack on the part of the artist of any self consciousness, of any striving for glory or reputation. The names of the great masters of Greek art we know; but Buddhist art in its highest manifestations is ever anonymous, for the artist's personality was sunk in his work, as he hoped that one day it might be sunk and absorbed in the Universal Soul.

Hence it is not fair to judge of Buddhist statuary by standards of artistic excellence alone—least of all by standards based purely on Occidental habits of thought. What we must ask ourselves in each instance is this: Did the statue express to the spiritual consciousness of the people that which the artist meant it to express? To understand the real meaning of Buddhist art, we must try to understand the ideas evoked by it in the mind of the worshiper.

All art is symbolic and interpretative; when it becomes merely a faithful imitation and nothing more it is no longer art. Now Buddhist art is in its very essence interpretative and didactic, making great use of symbolism, often of the utmost beauty. For example, the Goddess of Mercy, the Kwan-yin of the Chinese, is regularly portrayed wearing in her hair or headdress, as the case may be, a tiny image of her spiritual father, Amitâbha, the Buddha of Boundless Light. The idea, of course, is that infinite mercy is the offspring of boundless light or knowledge. To take another example in connection with the same divinity: Kwan-yin is sometimes represented as having a thousand hands, with an eye in the palm of each. The word "thousand" here simply stands for an infinite number, and the thought is that the Goddess of Mercy is reaching out helping hands throughout the universe, each equipped with an eye in the palm to enable it to spy out all suffering and distress.[1] The frequent use of the lotus, too, is not without its symbolic meanings, many of them very beautiful indeed; one of them, for example, conveys the message to the believer that just as the flower, though springing from the mire, remains spotless and unsullied, so he himself, if he will, may keep himself equally pure, however sordid and foul his environment.

To turn now to the examples of Chinese Buddhist statuary in the collections of the University Museum: an exceptionally interesting work, dating from the period of the Northern Wei, a dynasty of Tartar origin ruling in north China A. D. 386–549, is a Buddhist stela (Fig. 160) carved in a very dark hard stone weathered to a light gray through exposure to the dust-laden winds of northern China. That which

[1] For a different explanation of this symbolism see the MUSEUM JOURNAL for June, 1914, p. 81.

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FIG. 160.—Chinese Buddhist Stela of the Wei Dynasty (A. D. 386–549).

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makes this a work of more than ordinary importance is the fact that it bears upon the reverse a well-authenticated inscription giving the date and place of its origin. The front of the stela is taken up with a statue of the Buddha, about half life size, and in such high relief as to be practically in the half round; while on the other hand the designs upon the background of the statue and the reverse of the stela are in very low relief. The statue was at one time painted in at least three colors. The border of lambent flame around the background was evidently in red, as were also the visible portions of the lining of the drapery. Traces of a deep rich green, possibly in two shades, are still to be seen on the outer garment and also in the floral designs on the background, within the border of flame. It may be, too, that a white or light yellow was used for the mendicant's cloak, part of the costume of every Buddhist priest from the earliest times, and shown here draped over the figure's left forearm. There is no indication of pigment upon the hands and face, nor upon the reverse of the monument. Save for the upper part of the stela and the tips of the nose and fingers of the figure, this monument is in practically perfect condition. The mutilation was not accidental, but was the work of some iconoclast, carried out with the aid of a metal tool, the marks of which are still plainly visible, especially upon the nose. The Buddha is represented in the attitude of blessing, and is shown with the ushnîsha or constricted and elevated crown of the head,[1] one of the thirty-two lakshanas or signs of auspiciousness supposed to occur upon the person of every Buddha. The ûrna or mark upon the forehead and the long pierced ear lobes so generally characteristic of Buddhist images are not present in this instance. The figure stands with its weight equally upon both feet, and lacks that graceful poise and balance seen in the better examples of later work, while the treatment of the head, hands and feet and the handling of the drapery indicate that the artist was not yet quite master of his craft. The hands, for example, instead of being carved free, are attached by their backs to the body of the statue in rather a primitive way. Nevertheless there is no lack of boldness and certainty and vigor in the workmanship. This is most marked in the treatment of the features, and particularly of the eyes. The photograph does not quite do the sculptor justice in this regard. He evidently knew perfectly well what he wanted to express. If he falls short of his ideal at all, it is due simply to imperfection of tech-

[1] For this and other conventions of Buddhist iconography see the MUSEUM JOURNAL for December, 1914, p. 191 et seq.

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FIG. 161.—Reverse of Chinese Buddhist Stela shown in Fig. 160.

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nique and not at all to any lack of spirituality or lofty concept of purpose. In spite of a few slight shortcomings in matters of execution, the statue does not fail to convey to the thoughtful observer that impression of strength and majesty tinged with benignant tenderness always found in the best Buddhist sculpture everywhere.

The designs on the reverse (Fig. 161) consist of scenes from the early life of the Buddha. At the top, to the observer's right, is depicted the miraculous birth. Mâyâ, the young wife of S'uddhôdana, prince of the S'âkya clan, accompanied by six of her waiting women, stands in the shade of the sacred sâla tree, a bough of which she grasps with her right hand. The infant Buddha appears just issuing from his mother's right sleeve, to be received in the outstretched arms of a kneeling attendant; the stela here, as in a few other points, differs from the traditional account, which states that the new-born Buddha was received by Indra.[1] Signs are said to have accompanied the birth of the Buddha, among them flashes of five-colored light and the appearance of miraculous flowers. It is these, apparently, that the artist has attempted to show in the central portion of the stela, immediately below the birth scene.

To the left of the latter, and upon a slightly higher plane, the new-born babe is again shown, tightly wrapped in swaddling clothes, being passed to the arms of another of the waiting women, also kneeling. The next scene, directly beneath this, depicts the baptism (mûrddhâbhichikta) of the young Buddha, who stands upright between two kneeling personages who are sprinkling him with water from long-necked ewers. The traditional account speaks of the Buddha's baptism as being performed by nine Nâga (serpent spirit) kings. The stela, however, shows but a single dragon, possessing, it is true, nine heads, which curve protectingly over the young Buddha. The treatment of the Nâga is quite typically Chinese, suggesting somewhat the method of depicting the dragon in early indigenous art, save for the multiplicity of heads, which recalls the concept of the many-headed cobra in Indian religious art.

Immediately after his baptism, we are told, "the little babe walked seven steps toward each of the four points of the compass, and pointing with one hand to heaven with the other to earth pronounced with a lion's voice the following stanza: 'I have received the body of my very last birth; of all beings in heaven above and

[1] A very ancient Brahmanical divinity incorporated by the Buddhists in their pantheon on account of his great popularity with the masses.

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FIG. 162.—Early Chinese Statue of a Bôdhisattva or Buddhist Saint.

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under the heaven there is but myself alone to be honored.'" This incident is also portrayed upon the stela, the young child, with right hand pointing zenithward and the left toward the ground, being shown standing close behind the towering figure of the nine-headed dragon king.

The lower portion of the reverse of the stela is occupied by an inscription, of great importance as affording us an idea of the date of the statue. There is no reason to doubt the authenticity of the inscription, which confirms the evidence afforded by the style of the workmanship that this stela is a product of the period, toward the middle of the sixth century A. D., when the empire of the Northern Wei had split into a western and an eastern portion. We are further informed that the stela was made at the Ch'i Hs'ien monastery, in the northwestern part of the present province of Honan.

Another example of Buddhist sculpture, undated, like most of its class, but attributable to about the same epoch as the preceding, is a statue (Fig. 162) about three feet in height, showing very strong Indian influence. The subject is that of a Bôdhisattva, or being who, through successive rebirths, has at length attained to within one degree of Buddhaship. It is executed in what appears to be the same white magnesian limestone,[1] often called marble, from which are carved the colossal figures of men and animals lining the approach to the Ming Tombs north of Peking. The surface has been weathered to a rich, warm brown, and there are faint traces of pigment, indicating a possibility that the statue was originally colored. To all intents and purposes it is in the round; but technically it must be classed as an example of very high relief, as it is not quite fully detached from the slab forming the background. The figure stands upon a lotus pedestal, with the weight resting slightly upon the left foot, while the body from the hips upward is turned in the same direction in a rather graceful pose; behind the head is a halo of lambent flame. The fine features, with eyes almost closed as if in meditation, are expressive of a high degree of spirituality. Exceptionally, for a Buddhist statue, the lobes of the ears are neither of exaggerated length nor are they pierced. Unfortunately both hands are missing; in the stumps are visible the holes for the dowels by which they were formerly attached. The hair is gathered in a large knot, bound about with a fillet, while above the forehead is a jeweled ornament, so badly disfigured that it is difficult to say just what it is intended to repre-

[1] De Groot, The Religious System of China, Vol. II, p. 818, note.

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sent; it is possible, however, that it is a figure of Amitâbha, in which case we apparently have here a statue of Avalôkitês'vara, later identified, probably not much before the Ming dynasty (A. D. 1368–1644), with the indigenous Chinese divinity, Kwan-yin. Depending from

FIG. 163.—Buddhist Stone Statuette of the Wei Dynasty (A. D. 386–549).

the headgear, just behind the ears, and falling as far as the shoulders, are jeweled pendants, while across the bare bosom is festooned a necklace, richly ornamented. About the waist is a girdle, and a long scarf, looped twice across the front of the body, falls rather gracefully over

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FIG. 164.—Stone Temple Lion, Sixth or Seventh Century A. D.

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FIG. 165.—Pottery Statue of a Lo-han, of the T'ang Dynasty (A. D. 618–907).

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FIG. 164.—Stone Temple Lion, Sixth or Seventh Century A. D.

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FIG. 165.—Pottery Statue of a Lo-han, of the T'ang Dynasty (A. D. 618–907).

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the right forearm. Upon the whole the work seems too sophisticated to be an original early Chinese concept of a Bôdhisattva. The impression which one receives is that the statue is the work of one of those Indian Buddhist monks who were constantly coming to China during the first five or six centuries of our era; or else that it is a direct copy by a Chinese sculptor of an Indian image, possibly a diminutive one in metal, brought from India by some immigrant priest. It is unfortunate that we know so little at present regarding the provenience of this interesting statue.

The latter half of the sixth century was a period of incessant warfare and kaleidoscopic change of dynasties, most of them of minor importance. At length in A. D. 581 the entire country was reunited under the Sui dynasty, which gave place, in A. D. 618, to the great House of T'ang. This line of emperors was founded by a military adventurer named Li-yüan, who, upon ascending the throne which he had won for himself, took the name of Kao Tsu. Under him the land entered upon a period of peace and prosperity such as it had not known for over four hundred years. Both the geographical boundaries and the intellectual horizons of the Chinese people were enormously extended. Contact was reëstablished with the civilized lands to the west, and every field of human activity was stimulated to the utmost. What the age of Pericles was to Athens, or the Augustan age to Rome, such to China was the epoch when the emperors of the House of T'ang occupied the Dragon Throne.

It was during this period that Buddhist sculpture reached its noblest development. It was no longer felt to be an importation from a foreign land, the product of an alien faith. It had become an integral element of the social consciousness, an intrinsic part of the life of a great period. Henceforth statuary begins to show a degree of naturalism and individuality hitherto unattained, not merely in choice of subjects, but in conception and execution as well.

As is the case with the earlier periods, we know regrettably little concerning statuary in bronze and wood under the T'ang. That it was quite as fine as that in stone and clay is clear from the very few remains that have come down to us, principally in Japanese collections. Clay, hitherto employed for small mortuary figures of men, women and animals, now assumed an importance before unknown. One of the very greatest works of fictile art in the world today is a large glazed earthenware statue of a Lo-han or disciple of Buddha, dating from the T'ang period and now on exhibition in the University

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FIG. 166.—Glazed Pottery Figure of a Horse, of the T'ang Dynasty (A. D. 618–907).

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Museum[1] (Fig. 165). The mortuary figure of a horse, from the same period, shown in Fig. 166, was meant simply for interment with the dead, and is no doubt the work of an artisan rather than that of an artist—a copy, it may be at third or fourth hand, rather than an original concept. Yet even here we see exemplified in a high degree the feeling of the age; the modeling is strong and forceful and the proportions are upon the whole very correct. Above all, the spirit and fire of a high-bred horse are amazingly well brought out; although standing still, the animal seems all aquiver to be off, like the arrow from the bow, the moment its master vaults into the saddle.

This same mastery of technique, this ease and assurance in handling materials, are found to a wonderful degree in the stone statuary which has survived from that brilliant epoch. A number of excellent and typical examples of the latter the University Museum has been fortunate enough to acquire, particularly within the past year or two.

One of these is a statue (Fig. 167) of heroic proportions, representing Avalôkitês'vara,[2] as indicated by the image of Amitâbha in the headdress. The divinity stands upon a lotus pedestal, clad in gracefully flowing robes and wearing a jeweled headdress, while about the neck and depending down the front of the body are strings of beads and jeweled plaquettes. The ears in this instance, unlike those of the Wei statues described above, are of the characteristic Buddhist type, with greatly elongated lobes decorated with earrings. Save for the loss of the right forearm, the figure is in practically perfect condition. As is so frequently the case, in the stump of the missing forearm is a hole, indicating that the lost member had been carved as a separate piece and then fastened on with a dowel. Between the fingers of the left hand are the remains of what was probably a lotus bud. The well-poised head, with noble, delicately chiseled features, is a marvelous piece of work, comparable with the very best examples of the Buddhist art of this period to be found anywhere. The more it is studied, the more do the merits of this statue impress themselves upon the beholder.

Excellent as this statue is when regarded simply from the point of view of its esthetic merits, it is of even greater importance as bearing

[1] For an account of this wonderful statue, the MUSEUM JOURNAL for September, 1914, may be consulted.

[2] See ante, p. 154.

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FIG. 167.—Large Stone Statue of a Bôdhisattva, or Buddhist Saint, of the T'ang Dynasty (A. D. 618–907).

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undoubtedly authentic inscriptions upon three sides of the square base block. One of these informs us that a certain monk, Cheng Tao by name, who carved this particular inscription, had petitioned the emperor for his portrait and a tablet, for his monastery, and that his request had been graciously granted. The significant part of the inscription is of course the date, which reads: "Twenty-third day of the tenth month of the second year of Shen Lung." Now Shen Lung is the regnal title of the emperor Chung Tsung, who succeeded to the throne of the T'angs in the year 684, only to be deposed almost immediately by his mother, the Dowager Empress Wu How, one of those tremendously masterful and capable women who more than once in the history of China have possessed themselves of the reins of power. Chung Tsung remained in retirement until his mother's overthrow in 705, when he was restored to the throne; consequently the date named in our inscription corresponds to the year 706 of our chronology. The remaining epigraphs give merely a number of personal names, without dates, and obviously were cut at a later time.

Two most charming statues, or rather statuettes, probably from about the same period, are shown in Figs. 168 and 169. These, while not forming a pair in the strict sense, are so similar in feeling and treatment that they might be by the same sculptor. Owing principally to their much smaller size, they have not the majesty and power of the statue just described. But what they lack in this respect they fully make up for by an appealing sweetness and tenderness of aspect and an almost ethereal gracefulness of pose quite indescribable and rarely equaled anywhere.

The one of these statues shown in Fig. 168 is represented as wearing a headdress, which its companion lacks, and its treatment in general is slightly more ornate, the jewelry richer and the costuming more elaborate. The face, too, is rather better, for instead of showing merely the introspective calm so often seen in Buddhist images, it is instinct with life and feeling; its expression, as well as the position of the head, bent graciously forward, show the divinity listening to the supplications of the worshiper and offering him comfort and aid.

In other respects the two statues are singularly alike. Both are almost precisely of the same size, both stand upon lotus pedestals, and both still bear abundant remains of the red, blue, green and yellow paint and gold leaf with which they were once adorned. Even the injuries which they have received are similar, for the forearms of

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FIG. 168.—Stone Statue of a Bôdhisattva, or Buddhist Saint, of the T'ang Period (A. D. 618–907).

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FIG. 169.—Stone Statue of a Bôdhisattva, or Buddhist Saint, of the T'ang Period (A. D. 618-907).

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both are lost, as are the long scarves which once fell away gracefully on either side from shoulders to feet, and traces of the ends of which are still to be seen on the surface of the pedestals.

It would be difficult to say with any certainty what particular Bôdhisattvas are represented by these statues. There is no image of Amitâbha borne on the head of either to signify that Avalôkitês'vara is meant. In the case of one the head is quite bare, while in the headdress of the other is represented a chalice-shaped object, presumably the sacred pâtra or begging bowl of the Buddha, about which marvels are told recalling in many ways the cycle of stories clustering around the Holy Grail of Christian legend. Considering the great part played by Avalôkitês'vara in Chinese Buddhism, however, it is generally pretty safe to say that any given statue represents that deity unless there is positive evidence to the contrary, and there appears to be nothing in connection with these two little statues to forbid such an identification.

Quite dissimilar in inspiration and execution, but equally great, are another pair of statues, of heroic size, which are believed to have come from the Nan-hsien Tung temple, in Honan. Certain features in connection with these two statues suggest that they are the work of that period, about the middle of the ninth century, when the Buddhist art of sculpture in China reached its culmination. At all events, that they are in the very best T'ang style is certain. There is nothing of the archaic or primitive about them; conception and execution are both of the highest order, and show a thorough sophistication on the part of the sculptor. The faces are particularly fine, evincing a sincerity and nobility and majesty as far removed as can well be imagined from the simpering insipidity of the countenances of so many of the statues of a later day. While belonging to an entirely different province of art, the impression given by the faces of these statues is very nearly the same that one gets from the face of the Lo-han[1]—an impression of strength of moral purpose and intense concentration upon spiritual things.

One of these statues (Fig. 170) wears in its headdress a little image of Amitâbha, and as in other respects the two are very nearly alike it is probable that both are intended as manifestations of Avalôkitês'vara. In both the left hand is missing, so that we are unable to say just what mental attitude on the part of the divinity its position (mudrâ) symbolized. The jewelry is richer and more minutely

[1] See ante, Fig. 165.

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FIG. 170.—Large Stone Statue of Avalôkitês'vara, of the T'ang Period (A. D. 618–907).

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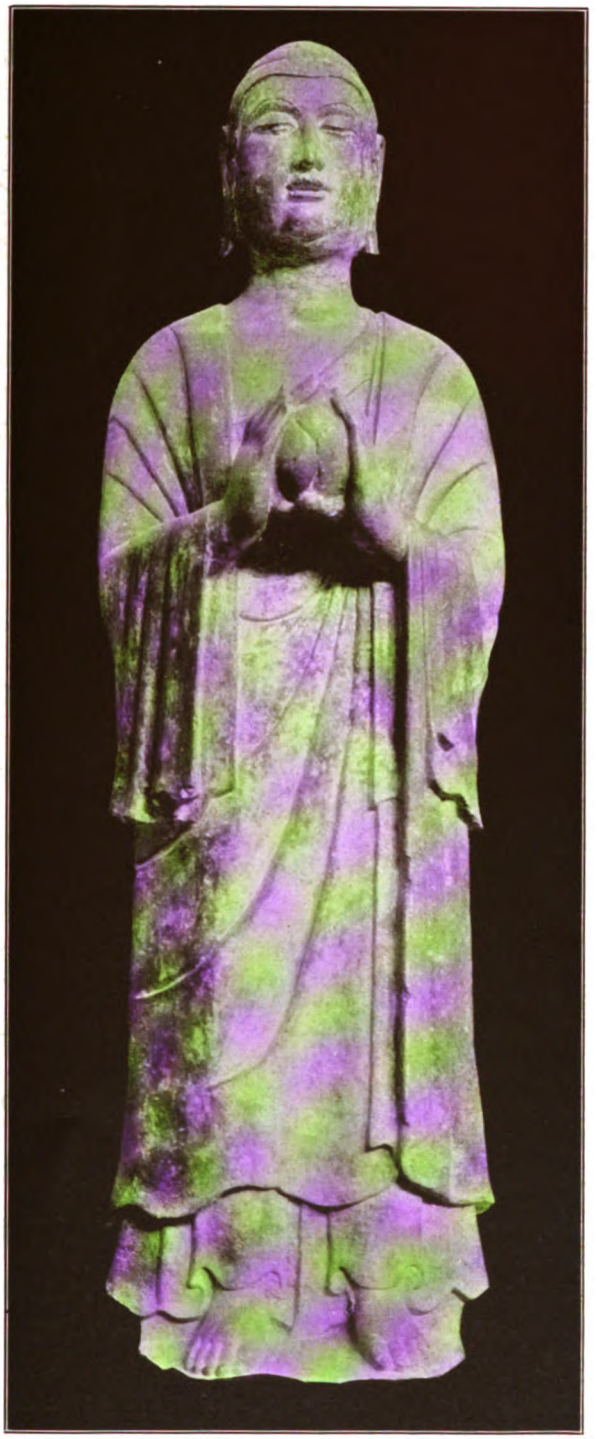

FIG. 171.—Large Stone Statue of a Buddhist Priest, of about the Seventh Century.

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worked out, the costuming more elaborate than in any of the preceding examples. Both statues were once painted, for in spite of the long weathering which they have undergone, and which has turned to a deep rich brown much of the surface of the very hard stone from which they are carved, traces of green and blue and red pigment are still visible.

With these two statues may be compared that of a Buddhist priest (Fig. 171) believed to be from the same temple, and similar in many points of technique, but absolutely unlike in inspiration and apparently earlier in point of time. The subject of this statue was not one of those superhuman beings whose representations we have thus far been considering, but a monk, though doubtless one of special reputation for sanctity, or he would hardly have been chosen for immortalization in stone. Though more archaic in some respects, as in the treatment of the drapery, than the two statues just described, and differing from these in proportions, it is very little if at all inferior to these masterpieces as a work of art. The very simplicity of the treatment emphasizes all the more strongly the thing that the sculptor was trying to bring out—the depth of the monk's abstraction, the intensity of his concentration upon his task of self mastery. Between his hands he reverently holds up, as if for inspiration, a mystic jewel, symbolic of the Sacred Law whose mandates he is striving to follow. His slightly upturned face and his eyes closed to all mundane considerations carry out admirably the thought in the mind of the sculptor. Because of its very humanness this statue has a greater appeal than many another of greater elaboration of detail and facility of technique, but with less purity of inspiration and sincerity and simplicity of expression.

Many causes contributed to the decay of sculpture in China after the ninth century. One of the chief of these was undoubtedly the great revival of Confucianism during the Sung dynasty (A. D. 960–1280). Enough has been said to show how very closely related was Chinese sculpture to the Buddhist faith. But Buddhism had from the earliest times met with bitter opposition from the Confucianists, and when the latter finally won the victory and secured for themselves that position of influence and power which they have retained, save for intervals,[1] ever since, Buddhism and Buddhist art alike fell from their former high estate.

[1] The chief of these intervals was during the Mongol (Yüan) dynasty, 1280–1368 A. D., when that form of Buddhism known as Lamaism was the state religion.

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FIG. 172.—Large Bronze Buddhist Statue, of the Ming Dynasty (A. D. 1368-1644).

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Persecutions of Buddhism there had often been, though these took chiefly the form of attacks upon the conventual system upon which the faith is based, and were not inspired by religious hatred. The matter-of-fact Chinese mind saw no sufficient reason why tens of thousands of able-bodied men and women should be allowed to withdraw themselves from productive secular life, or why millions in money should be taken out of circulation to be cast into images not only of bronze but also of the more precious metals. In general the persecutors contented themselves with destroying the religious foundations, melting down the images of metal, burning those of wood and smashing the ones in stone, and compelling the monks and nuns to return to the world and go to work for a living. In many cases, however, especially where the clergy were suspected of being evil livers, there were appalling slaughters. After a number of minor persecutions in earlier centuries came a great one, under the emperor Wu Tsung (841–847), when 4,600 convents and 40,000 smaller foundations were utterly destroyed and over a quarter of a million men and women compelled to exchange a religious for a secular career. The enormous landed properties of the sect were confiscated to the state, the bronze images and bells were melted down into "cash," and the gold and silver were turned into the imperial treasury. Immense numbers of Buddhist statues of all sorts must have been destroyed during the course of this persecution, which came just at a time when Buddhist statuary had reached its highest point of development.

Confucianism had not only this directly destructive influence upon Buddhist art, but it also exerted an indirect one of vastly graver effect. During the T'ang dynasty the national Chinese character was one of progressiveness and receptivity and eagerness to acquire new ideas and points of view. Confucianism, however, as is well known, is based upon a regard for the past which refuses to allow that any deviation from the ways of the ancients can be aught but injurious and wrong. Consequently with the establishment of the Confucian philosophy as the guiding principle of the state, under the Sung emperors, the national temperament began to lose its elasticity and to crystallize and harden. Progress largely ceased (although by no means so absolutely as is often stated by people who talk about the "unchanging East" with more fluency than knowledge). Successful imitation of ancient masterpieces became the ideal and ambition of the artist. Even statues of Buddhist origin from now on are in general animated, if they can be said to be animated at all, by that

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devotion to the standards of antiquity which is so prominent a characteristic of Confucianism. Instead of being original creations, they are in most instances mere lifeless copies of the great statuary of Wei and T'ang, which for its part was inspired by a living and vivifying faith in one of the world's great religions. That Chinese artists of later times have been capable of as great work as ever, as far as technique and the handling of materials are concerned, is shown by such works as the colossal statues, already mentioned, which line the approaches to the Ming Tombs, or the large figures in gilt bronze which have been produced in the past five hundred years. The work on these is often good, the decoration not infrequently fine and the general ornamental effect at times exquisite. It is only lack of originality that causes them to fall short of the highest excellence.

This is well illustrated by a Chinese Buddhist statue (Fig. 172) of the Ming dynasty (1368–1644), of heroic size, which may be regarded as an exceptionally good example of its class. This statue, representing some Buddhist divinity, perhaps Amitâbha,[1] is of gilt bronze, much tarnished and worn in the course of centuries, and shows the divinity seated in conventional cross-legged attitude upon a lotus pedestal of the same material. The Buddha wears the crown with the five jeweled peaks, each peak containing a small Buddha figure,[2] and the position of his hands tells us that he is in the act of expounding the sacred truths. The flowing garments, which still retain a good deal of their gold plating, are decorated with broad borders of chiseled ornamentation in the way of floral patterns mingled with Buddhist emblems, in the best of taste, while the bosom of the divinity bears outlined upon it a swastika. There is little tangible to criticize in this figure and much to praise. Yet a comparison of it with any of the examples of the great period of Chinese art instantly reveals something wanting. There is no lack of skill on the part of the artist. Probably in matters of technique he had a greater facility than his predecessor of Wei or T'ang. Nevertheless his work is wanting in that quality of original inspiration which vitalizes the art of those earlier periods, and which, as this very inadequate sketch of Chinese sculpture has endeavored to show, ranks it with the products of the very greatest schools of art that the world has ever produced.

C. W. B.

[1] See ante, p. 154.

[2] For an explanation of this crown see the MUSEUM JOURNAL for June, 1914, p. 87.

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ISHTAR'S JOURNEY TO HELL

THE legend of the journey of Ishtar to the lower world, in quest of her lover, the dying god of vegetation Tammuz, forms one of the most beautiful episodes in story and in verse in Babylonian literature.

The Museum has part of a Sumerian version of this story.

Until recently the only known version has been that of the famous text of the Asurbanipal library from Nineveh possessed by the British Museum, redacted in pure Semitic. It has been justly regarded as one of the finest literary productions of antiquity. The Ninevite text was copied by the scribes of Asurbanipal in some Babylonian library, and has come down to us slightly damaged on the obverse. The Temple or Palace library at Assur, the ancient capitol of Assyria, recently excavated by the German Expedition, also possessed a copy of this poem; this copy is now published by Dr. Ebeling in the official publications of the Berlin Museum and restores nearly the entire text. The Semitic Babylonian version has not been recovered. It has been, however, commonly supposed that the poem originated in Babylonia and was first composed in Semitic. The two Assyrian texts contain about one hundred and forty lines.

The origin of the legend itself is known to have been Sumerian so far as Babylonian religion is concerned. It was originally similar to the Egyptian form of this myth in which Isis, the mother goddess, is the sister of Osiris, the dying god. Through Semitic influence the myth in Babylonia became composite, the Sumerian tradition being largely given up in favor of the Semitic view in which the earth goddess was the mother of Tammuz. The original Sumerian name of this unmarried earth goddess was Gestin, or goddess of the vine, but a name almost equally old was Innini, "heavenly queen." In the Sumerian myth she is usually referred to as Innini. The Semites identified her with their own goddess Ishtar and substituted her name for the Sumerian appellative in the Semitic poem.

The story told throughout antiquity of the descent of the weeping mother goddess into the "Land of Return" to search for her departed son and lover Tammuz (the western and Greek Adonis) certainly belongs to the original Sumerian tradition, as has been proven

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by an interesting tablet of the Nippur collection in Constantinople. The myth has almost certainly an astronomical origin, being based upon the Sumerian identification of Innini with Sirius Major or the Dog Star. This star was invisible for about two months of the year

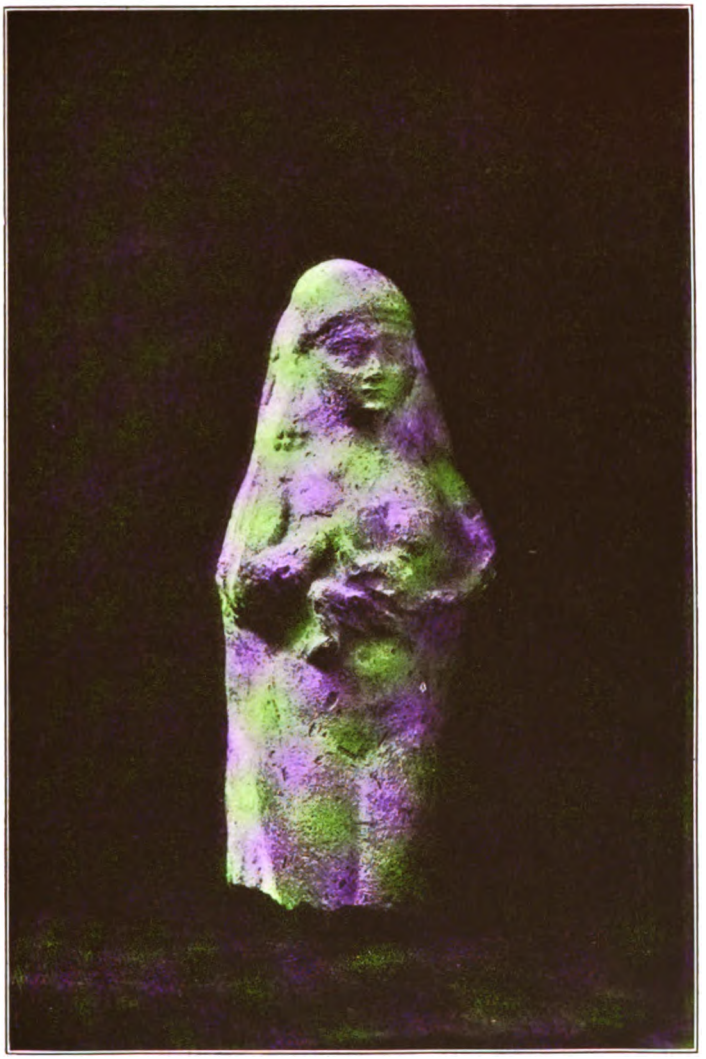

FIG. 173.—Clay Statuette of Ishtar with her Infant Son Tammuz. In the Collection of the University Museum.

in the hot season when the god of vegetation was said to perish annually as a child cast adrift on the waters of the Euphrates. The ancients supposed that celestial bodies journeyed in darkness across the lower world during their periods of invisibility. Hence, with the disappearance of her star Sirius, they inferred that the goddess also took her

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way into that land of the dead whose seven gates barred the entrance to all save the souls of those that died.

Fortunately this Museum possesses at least one tablet of a Sumerian poem on the same subject. The tablet consists of two fragments now joined (11088+11064).

The obverse is completely obliterated, but at the bottom the name of the goddess of the lower world Erish-ki(?)gal(?) can be read. The reverse carries twenty-three well-preserved lines and contains that part of the poem which describes the passage of the first four gates of Arallu, or the lower world. We are here in the midst of the legend where Innini commands the watchman of the seven gates to give her passage into the presence of the queen of Arallu, where she has secured the sleeping Tammuz. The passage is as follows.

To the command of his mistress he gave heed
He drew the bolts of the seven gates of earth
Of the great gate "gate of misery of the lower world"—its . . . he
To the holy Innini he spoke;
"O Innini enter
O Innini in thine entering
A measuring rod of lapis lazuli (take?)."
In causing her to enter by the first gate, the fillet and high crown of her head be removed.
"Why is this?" she said
"Pass on, O Innini, the decrees of the lower world (are thus ordained)
Innini, the laws of the lower world truly are thy command."
In causing her to enter the second gate, the . . . of her forehead the (watch) -man removed.
"Why is this?" she said
"Pass on, O Innini, the decrees of the lower world (are thus ordained).
Innini, the laws of the lower world truly are thy command."
In causing her to enter by the third gate, the double erimmati—jewels from her shoulders the (watch) -man removed.
"Why is this?" she said
"Pass on, O Innini, the decrees of the lower world (are thus ordained).
Innini, the laws of the lower world truly are thy command."
In causing her to enter the fourth gate.

Here the tablet writing ceases and the remainder of the reverse is left uninscribed. The text thus leaves us in medias res, so that we are compelled to infer the continuance of the poem on another tablet. The entire poem was probably written on three tablets, of which Ni 11088 is the first.

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The Semitic poem is obviously based upon this Sumerian original. The extraordinary fact is that the Assyrian versions are not bilingual. We are bound to infer that the Semites expanded the original version to such extent that it became an independent product of the Semitic mind. Since they did not employ the poem in public religious ceremonies, the adherence to the bilingual form was no longer imperative. At any rate, the Nippur library contained a complete Sumerian poem based on the myth of the Descent of Innani or Ishtar. That constitutes one of the most important archæological discoveries yet made in the University Museum collection.

S. L.

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THE BAGOBO

Some Notes on a Lately Acquired Collection

"THE owners of these islands," says an old writer, speaking of the southern Philippines about a century and a half after Magellan, "are those who people the mountains," having retreated thither before invasions of more vigorous tribes (Moro), who hold the coasts and "bear themselves among those people as princes." The Bagobo still "people the mountains" of Mindanao between the crest of the range which culminates in the volcanic Mt. Apo, the highest peak in the Philippines, and the waters at the western side of the head of the Gulf of Davao. They form a population of some ten or twelve thousand, still largely pagan; since the American occupation of the Islands, a considerable number have been induced to settle in the lowlands between their original mountain fastnesses and the coast.

The Bagobo do not seem to differ greatly from other Malays in appearance. They are short and slim, broad-headed and of a light reddish-brown complexion. These characteristics are said to be common to all the tribes about the Gulf of Davao; though individuals are found, especially toward the interior, who show marked traces of intermarriage with Negritos. The Atá, to the north and northeast of the Bagobo, have been called Negritos by some observers; and there are said to be Pygmies in the Samal Islands of the Gulf.

Various phases of the life of these people are well illustrated by many of the objects included in a large collection made among the Bagobo within recent years, and lately acquired by the Museum.

The Bagobo are a settled people, practicing agriculture as well as hunting and fishing. Their chief crop is rice, which they grow in clearings on the mountain sides. Since this grain is their staple food, the whole routine of its cultivation is most closely bound up with their religious beliefs and practices. When, in December, Orion appears in the sky, this is the signal for the celebration of the great yearly sacrifice and for making all things ready for the rice-planting. Offerings of rice cooked in bamboo tubes—pots must not be used for this purpose—are made at the smith's forge, to which the men bring their working knives and other tools used in connection with the cultiva-

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FIG. 174.—A Bagobo House.

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tion or clearing of the fields. Then the smith calls on his patron spirit to come and eat of the food and accept the tools here devoted to him. These tools will be used in field work, although they now belong to the spirit, and compensation must be made to him if a knife be sold or otherwise disposed of. For the next three days no man must do any work. At the end of that time the workers go to the fields and set up in the middle of each a receptacle containing an offering of areca nuts intended for Manama, the Creator. In return for this, Manama is expected to keep mischievous spirits out of the field, to grant health, large crops and riches to the owner.

Then, if it is a new field—and the incessant encroachments of cogon grass make frequent new clearings necessary—the trees and brush are cut down and burnt. But no soil must be broken nor any further preparations made for planting until the constellation Marara appears in the sky in April.

Prayers and offerings to Manama and to the food spirit Taragomi precede the actual commencement of planting operations. The rice-planter consists of a long shaft, to one end of which is attached a narrow iron blade, the other end having fastened to it a clapper of split bamboo. The men make shallow holes in the ground with these implements, the women following and dropping into the holes the seed, over which they scrape the loosened soil with their feet. The purpose of the clappers is obscure; perhaps they are intended to frighten away ill-disposed spirits, or it may be that the noise made by them as the planters strike the ground is pleasing to the guardian spirit of the field.

According to the Jesuit Father Gisbert, writing in 1886, a feast accompanied by the sacrifice of a human victim was held before the planting. Dr. Cole is doubtful whether any such sacrifice accompanied the rice-planting ceremonies. Father Gisbert, however, is quite explicit on this point; and from Dr. Cole's description of "the greatest of all Bagobo ceremonies—the Ginem," which is stated to be held "within three or four months after the appearance of the constellation Balatik (Orion)," *i. e.*, just about the time when the rice-planting would commence, it appears that a human sacrifice was formerly made as a part of this ceremony. This coincidence in time and certain details of the ceremony, as well as the fact that one of its objects is said to be "to so gratify the spirits that they will be pleased to increase the wealth of all the people," make it seem more than probable that the Ginem, the "annual sacrifice," and the rice-planting

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FIG. 175.—Scene in a Bagobo Village.

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festival all form part of a series of ritual performances connected with the spring activities looking to the ensuring of an adequate food supply.

According to Father Gisbert, the feast before the sowing, which he describes as "a criminal and repugnant trago-comedy," was held in the woods. A slave—the victim—was bound and the celebrants performed a sort of wild dance around him, shouting and striking the victim one after another until the body was cut into small pieces. They then repaired to the house of the chief, bearing branches of trees, which "they place in a large bamboo, not only the chief adornment but the altar of the house." Then followed a feast, at which apparently the only essential formality consisted in the appeal of the datu or chief to "the great demon called Darago." The datu stood near the bamboo "altar," holding a vessel of sugar-cane wine, and said: "Darago, we are making you this feast with great good-will and gladness, offering you the blood of the sacrifice which we have made, and this wine which we drink, so that you may be our friend, accompany us, and be propitious in our wars."

The bamboo "altar" of Father Gisbert is evidently the patannan of Dr. Coles—two poles of bamboo, "one nine, the other eight sections long." These are decorated with shavings, "strips of palm or bamboo leaves and cloth or palm-leaf streamers." They are dedicated to Mandarangan and Darago, a male and a female spirit, husband and wife, the patrons of warriors, who dwell in Mt. Apo—the longer pole being that of Mandarangan, the shorter, of Darago. To these poles are attached the skulls of enemies killed in a recent raid. The blood of a chicken sacrificed by the datu or chief magani (warrior) is sprinkled on the poles—this is a modern substitute for the blood of a human victim—and, the sacrifice having been made, the men and boys gather round the poles "and yell lustily." Food is then partaken of by the company, portions being offered to the supreme being and to various other spirits.

Then the magani, one after the other, holding on to the patannan, recite the warlike deeds they have performed, and enumerate their killings and captives. This is followed by more feasting and by dancing to the music of the agongs.

The second day of the festival is the women's day, and the mabalian, or shamaness, plays a much more important rôle in the proceedings than on the first day. The women make offerings of garments and of betel to certain spirits, and dance before them to the

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FIG. 176.—Bagobo Musicians.

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music of small agongs. Towards the end of the day the mabalian sprinkles the heads of the women with drops shaken from leaves dipped into an old agong filled with water, praying the spirits to give to their worshipers "a good mind and habit."

The women are the weavers. They make beautiful hemp cloths on a primitive loom of a type found at various points on both sides of the Indian Ocean from the Congo to Micronesia. A "saddle" of carved wood passes behind the weaver and is attached to a rod in front of her body. From this rod the threads of the warp extend to a bamboo beam fixed horizontally to the wall of the house. The weaver sits on the ground in such a position as to keep the warp threads stretched taut. These have previously been stretched vertically on a bamboo frame and portions of them "reserved" in groups by being wound tightly with hemp fibre according to a regular pattern. The threads are then removed from the tying frame and placed in the dye, so that the uncovered portion takes the desired color. This process may be repeated until a pattern in two or three colors appears on the warp, which is then transferred to the loom.

A variant of this method of dyeing is practiced by the Kulaman (Manobo) who live to the south of the Bagobo. They "reserve" a pattern by stitching hemp thread closely on the finished cloth, which is then placed in the dye. When the unreserved portions of the cloth have absorbed the color the piece is removed from the bath and allowed to dry. The stitching having been removed, the reserved pattern appears in the natural color of the hemp fibre. The Bagobo procure this cloth by trade from the Kulaman, as they do also fine embroidered jackets from their other neighbors the Bilaan.

Similar methods of "reserving" portions of the warp, or of the finished cloth, from the dye so as to form a pattern are followed in Africa among some tribes of the Kasai River basin, in Indo-China by the Khmer of Cambodia, and in Java and Borneo. The Igorot loom is almost the counterpart of that of the Bagobo.

A somewhat different mode of reserving a design—on finished cloth—is that used by the makers of the magani's head-kerchief. This branch of the weaving industry is a specialty of the mabalian or shamaness. The kerchief is woven of cotton thread procured from Chinese traders. It is dyed a dark reddish-brown, after portions of the cloth have been reserved by being caught up and closely overtied with hemp fibre. When the fibres are removed an elaborate pattern outlined in small white rings appears against the red background.

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FIG. 177.—Bagobo Warriors. Illustrating some of the costumes, weapons and shields recently acquired by the Museum.

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The magani wear suits of hemp cloth dyed a dark red—blood color. A man who has killed two persons becomes, by that act, a magani, and is entitled to wear the kerchief. When he has killed four, he may assume trousers of blood color; and the taking of six lives gives him the right to a complete blood-red suit. The mabalian, on account of their ability to weave and dye the magani's head-kerchief, are under the special protection of the patron spirit of weavers, and are the only people besides the magani who are allowed to wear garments of linumbus, the blood-red cloth. At any rate, the wearing of this cloth was formerly so restricted, but it seems that the privilege is now extended to other women of rank and to the young sons of chiefs.

The dress of the men consists of a short tightly-fitting jacket, open in front, and very short tight trunks. The women's jackets are similar in shape to those of the men, but they are closed in front so that they have to be slipped on over the head. The women wear also a tube skirt, of the same width throughout, like a sack. The jackets of both men and women are richly ornamented with shell discs, glass beads or embroidery. The men wear a kerchief, folded and tied, on their heads; a woman's coiffure is embellished with bead-incrusted combs cut out of wood, from which hang heavy festoons of beads.

Both men and women wear ear-plugs connected under the chin by numerous varicolored strings of beads. Men who can afford it have their ear-plugs made of ivory imported from Borneo. Chains and strings and woven bands of beadwork hang in great profusion about the necks of both men and women. The large flat carrying-bags worn by men on their backs and the small trinket-baskets of the women are elaborately ornamented with beadwork also. The effect of the costume with its wealth of brightly colored ornament is strikingly picturesque, and must form, with its wearer, an ensemble admirably in keeping with the tropical conditions of atmosphere and landscape and illumination.

Arms and legs are laden with bracelets and bangles of brass, of shell, of cunningly woven vegetable tendrils and fibres. The art of brass founding, and of casting by the cire perdue process, has evidently been learnt from the Moros, as is shown especially by the examples of brass betel boxes in the collection.

In hunting, besides the ordinary spear or lance, which is also a weapon of war, a harpoon is used. When the head of this weapon enters the body of a running deer, it becomes detached from the shaft, which is thus left dangling by the cord which attaches it to the head,

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FIG. 178.—Bagobo men's costumes. Illustrating elaborate colored embroidery and beadwork recently acquired by the Museum.

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until it becomes entangled in the brush and places the wounded animal at the mercy of the hunter.

Wild fowl are captured by means of a snare used in connection with a decoy bird—a tame rooster, tied to a tree in the jungle and surrounded by a number of running nooses of rattan attached to a cord of the same material. The crowing of the rooster attracts the wild birds, which approach to investigate and become ensnared in the nooses. The trapper carries his rooster to the jungle in a flat basket to which is attached a receptacle for the coiled rattan cord with its nooses.

The principal weapons of the Bagobo warrior are spear and knife. There are several forms of both weapons in the collection; the knives including several fine examples of the typical Malay kris. Shields are either round or oblong. The round shield is practically identical with those carried by some Javanese tribes and by the Moros. They have the bow, but seem to place little reliance on it in warfare. An attack begins with the hurling of spears. This is, however, merely a preliminary to the real combat, which is carried on at close quarters with the knife.

From Father Gisbert's account, quoted above, of the spring feast before the rice sowing, it would seem that Darago was regarded as the patron of warriors—sacrificed so that he might be propitious to the tribe at war. Father Gisbert goes on to say that the ceremony was concluded by a kind of litany in which were recited the names of "all the most celebrated Daragos." Elsewhere he says: "There is no rancheria in which they do not annually make their feasts to the demon—Busao, Mandarangan or Darago, for they are wont to give him these and many other names." Again: Mandarangan lives in Apo "as in his throne of smoke and fire." From these and other statements about the "gods" and "demons" of the Bagobo, it would appear that there was no little confusion in the mind of the good father as to the names and functions of the divinities in the Bagobo Olympus. His attempt to establish a hard and fast line of cleavage between the Bagobo powers of good and of evil only serves to make this confusion worse confounded, and brings him to the curious conclusion that although they recognize a God who is very good and created all things, yet "they believe that both in this life and in the other they belong to the devil" [Mandarangan, Darago, Busao?], who yet claims only one of the two souls of a man when he dies, the other going "to heaven." It is this "devil" whom Father Gisbert makes

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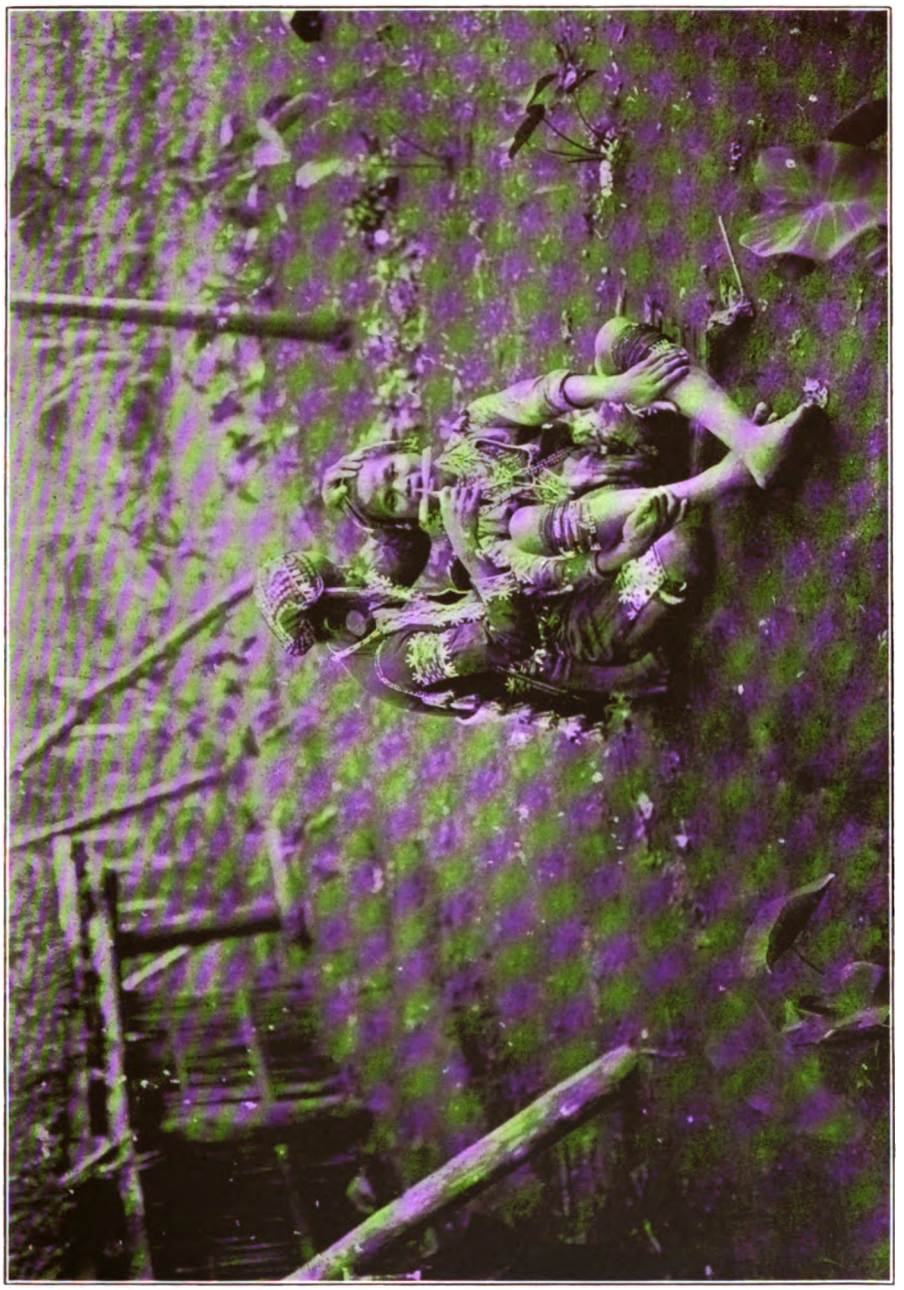

FIG. 179.—Filing the front teeth, a Bagobo custom.

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responsible for the human sacrifices, which, he says, are propitiatory or precautionary, intended to avert evil by glutting with blood the author of evil, on the principle, apparently, that "like cures like."

A more consistent and systematic account of Bagobo beliefs is given by Dr. Cole, who, as already mentioned, treats Mandarangan and Darago as two distinct spirits, man and wife. He states definitely that they are the patrons of warriors and, here agreeing with Father Gisbert, dwellers in the "great fissure of Mt. Apo."

The head of the Bagobo is datu of Cibolan, who has under him minor datu, nominally, at least, subject to his authority. He has, or had until recently, power of life and death over the tribesmen, modified only by his respect for the customary law handed down from the ancestors and binding him in common with the rest of the tribe.

The remainder of the Bagobo belong to two classes—freemen and slaves. Women and children captured in war become the slaves of their captors. But the servile class rapidly tends to become merged with the class of freemen: a woman who bears a child to her master is commonly freed, and in any case her children are regarded as free and legitimate inheritors of their father's property.

A freeman's chief ambition is to become a magani, and be known as such by his distinctive garments. The magani's victims are not necessarily members of a hostile tribe: a man may count two in his score for the slaying of an unfaithful wife and her lover; and even one of his own townsfolk, if killed in fair fight, will go to increase his tally.

The mabalian form a priestly caste consisting principally of women, although men are not barred from its ranks. The call to become a mabalian comes—sometimes at an advanced age—in a vision, or from other mabalian to whom the spirits have designated the person chosen for the office. She is physician, midwife, builder of shrines, conductor of ceremonies, intermediary between gods and men; and, in a society in which prowess as a warrior is the key to social advancement and the gaining of the favor of the gods most courted, she, as is fitting, is the only skilled artificer of the insignia of the fighting man, and alone is privileged to flaunt in her own clothing the glaring tint that marks the man of blood.

H. U. H.

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NOTES

The following gifts have been received since the last number of the JOURNAL went to press.

From Mr. Charles L. Freer, a photographic reproduction of his great masterpiece of Chinese painting, a landscape by Ma Yüan, the great master of the Sung Dynasty.

Messrs. Lai-Yuan & Company (Mr. C. T. Loo) have presented to the Museum an exceptionally fine Chinese lacquer screen made during the Ming Dynasty.

Mrs. George R. Kurrie has presented an embroidered pouch made by the Taku Indians.

Mr. William H. Mechling has presented to the Museum a series of Mexican cloths and a pair of moccasins.

The following purchases have been made.

Two large Chinese stone statues made during the T'ang Dynasty.

A Chinese painting representing The Subjugation of the Deluge, dated in 1587.

A Chinese bronze temple bell.

A collection of North American stone implements chiefly from Eastern United States.

A collection of ethnological material chiefly from the Southwest and from the Plains area.

A collection of Tlinkit rattles and masks.

An Eskimo collection from the vicinity of Cape Lisburne.

The last four collections mentioned were purchased through the generosity of Mr. John Wanamaker, who has also made it possible for the Museum to increase the collections from the Northwest Coast of America by maintaining an expedition in the field.

The collections made by Mr. Bishop in China have arrived at the Museum. They consist chiefly of pottery figures and pottery vessels of the Han and T'ang Dynasties, as well as bronzes of these and of earlier periods. One of the most interesting specimens in the collection is a Japanese large clay sarcophagus of the prehistoric period.

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A recent addition to the Museum library is the original manuscript of a journal kept by a Japanese official at the close of the eighteenth century while on a tour of inspection among the Ainu aborigines of the island of Yezo. There are in all six volumes, of which the first three contain a record of events day by day from March, 1799, when the writer and his party set out from Yedo, until their return to the capital in the following September. The other three volumes are devoted to a series of excellent water-color sketches of the aborigines and their manner of life. Architecture, house furniture, costumes, utensils, weapons, industries, sports, games, feasts, are all portrayed with the most painstaking accuracy, and with a life and vigor which prove that the journalist was a talented artist as well as a keen observer. The manuscript promises to be of considerable value in throwing additional light upon a once powerful but now nearly extinct race, at a period when their culture was very much less modified by contact with outsiders than is the case today. This interesting and valuable document was acquired by Mr. Bishop while engaged upon the work of the Expedition to the Far East.

Reports from the Eckley B. Coxe, Jr., Expedition in Egypt have continued, during the summer, to show important developments in the excavations of the great palace of Merneptah at Memphis. The work for the season was discontinued at the end of June.

Letters from Mr. Alexander Scott contain interesting reports on the progress of archæological research in India and of the work that is being done there by the Director-General of Antiquities, Sir John Marshall. Mr. Scott has been successful in his researches on behalf of the Museum.

Mr. Robert Burkitt has continued during the summer his studies in Guatemala. Among other things he has begun a collection of the legends, folk tales and incantations of the Kekchi Indians.

Dr. E. W. Hawkes was engaged during the summer in making excavations on behalf of the Museum at Tuckerton in New Jersey, where he found evidences of ancient pile dwellings on a site which had previously been partly explored by Mr. Frank Hamilton Cushing.

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Mr. H. U. Hall has been appointed Assistant Curator of the Section of General Ethnology.

Prof. A. H. Sayce, of Oxford and Edinburgh, visited the Museum in August and remained through September studying the collections of the Museum and copying a series of Cappadocian tablets in the collections of the Babylonian Section. This eminent scholar was on his way to Japan, where he has been invited by the Japanese government to deliver a series of lectures before the Imperial University.

Dr. Stephen H. Langdon, of Oxford, arrived at the Museum early in August and spent that month as well as September in collating tablets which he copied on a former visit, and in copying others of the same series for a volume of Liturgical Texts which he has just completed.

Dr. Langdon has been appointed Curator of the Babylonian Section.

Mr. William Churchill, eminent philologist and author of books on the South Pacific, has been at work in the Museum since April until the present time, making a special study of the Polynesian collections. Mr. Churchill, whose knowledge of the peoples of the Pacific, acquired when he occupied the post of Consul-General in Samoa and during years of travel and study, is very great, has rendered valuable service to the Museum in helping to classify its South Pacific collections. He has now in preparation a monograph upon the Polynesian clubs in the Museum collection.

The following memorandum by Mr. Churchill is of interest.

"You have succeeded in acquiring a collection of the ethnica of Polynesia, Micronesia and Melanesia which in the mere number of pieces ranks with the foremost assembling of such material. Nor is mere number the principal thing which is to be recorded of this collection. Many of the objects are extremely rare and for that reason of the utmost value in the study of the arts and crafts of the Pacific islanders. Several of your pieces seem to me to be unique, at least they are new to my acquaintance and are not recorded in the work of Edge-Partington and later recorders of the life of these islands.

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"Your collection from that most mysterious and engaging site, Easter Island, is among the best in the world. Except for the massive statues and the excessively rare hieroglyphs, I find that you have examples of all the forms of the art of that island. At any time when it is convenient you could acquire examples of the statues if it were considered worth the expense of an expedition. The inscribed tablets were originally very few and they have long since passed into public possession and are removed from all possibility of purchase.

"I am particularly pleased with the extent of your collections in the stock types. This is quite general upon several important items. I note particularly the several types of Fijian clubs; in the items of the small missile club, the so-called pineapple club (I trust that you will change this designation to the pandanus club, for the pineapple was not known to the islands until introduced of recent years by Europeans), and the lip club; in each of these club genera you have so many and such well chosen examples that you can display in them the whole series of evolution in shape and ornament, which makes a very interesting theme.

"My intimate acquaintance with the islands extends over a generation in time and over the whole range geographically, therefore I have been able to pass upon a number of problems of disputed attribution and also have been able to evaluate the credibility of several of the field collectors from personal acquaintance with them. A few interesting cases have been noted in which the place of collection and the place of origin are not the same. I recall as of noteworthy interest a figurine of walrus ivory clearly of Alaskan origin but collected many years ago in Fiji by one of the most trustworthy of collectors, a club of distinctly Samoan provenience collected in Ysabel of the Solomon Islands, a club of narwhal ivory of which the material was secured in Bering Sea and the carving undoubtedly done by a Samoan sailor on a whaler from whose hands it passed to ownership in Santa Cruz."

Two lecture programs have been arranged to run through the winter, one on Saturday afternoons open to the public, and the other on Wednesday afternoons for the elementary schools and high schools. The lectures will begin in the first week of November and will end in March. Arrangements are also being made for several evening lectures.

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The lectures of the Saturday program are as follows.

November 4. James Barnes, Across the Heart of Africa with a Motion Picture Camera.

November 11. John C. Ferguson, The Great Artistic Past of China.

November 18. Arthur Stanley Riggs, Art and Civilization of Sicily.

November 25. Wm. Curtis Farabee, The Amazon Expedition of the University Museum. In the Lower Amazon and Across the Unknown Guianas.

December 2. George A. Dorsey, My Journeys in Ceylon and South India.

December 9. Carl E. Akeley, A Naturalist Among Big Game.

December 16. Charles Wellington Furlong, Glimpses of Peru.

January 6. Joseph K. Dixon, Manners and Customs of our Indians.

January 13. James P. Chapin, Six Years on the Upper Congo.

January 20. James Henry Breasted, Discovery of an Egyptian Sculptor's Studio of the Fourteenth Century B. C.

January 27. William Churchill, Recollections of the South Sea Islands.

February 3. Carl W. Bishop, The University Museum Expedition to the Far East.

February 10. Wm. Curtis Farabee, The Amazon Expedition of the University Museum. A Journey in Search of the Amazon Head Hunters.

February 17. H. U. Hall, In Unknown Siberia.

February 24. J. H. McGregor, The Earliest Men of Europe.

March 3. Wm. Curtis Farabee, The Amazon Expedition of the University Museum. At the Headwaters of the Amazon and the Eastern Slope of the Andes.

March 10. Joseph M. Rogers, The War-ruined Cathedrals of France.

March 17. Fay Cooper Cole, The Head Hunters of Luzon.

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The lectures of the school program are as follows.

November 1. James Barnes, Through Africa with a Motion Picture Camera.

November 8. George LaMont Cole, The Indians of the Terraced Houses.

November 15. Alanson Skinner, My Canoe Trip to Hudson Bay.

November 22. Michael Dorizas, Adventures in Persia.

November 29. James P. Chapin, Hunting in the Heart of Africa.

December 6. George A. Dorsey, Through India with a Motion Picture Camera.

December 13. Charles Wellington Furlong, Brazil, the Land of the Southern Cross.

December 20. Mrs. George W. Handy (Dora Keen), A Summer in the Alaskan Wilderness.

January 3. Pe-ahm-e-squeet (Floating Cloud), Indian Life and Legends.

January 10. Carl W. Bishop, A Trip Through Japan.

January 17. Michael Dorizas, Greece, Ancient and Modern.

January 24. Mrs. Arthur R. Iliff, A Mud House in New Mexico.

January 31. Michael Dorizas, Constantinople.

February 7. Walton Brooks McDaniel, The Life of a Roman in His Town House.

February 14. Walton Brooks McDaniel, The Life of a Roman in His Country House.

February 21. Carl W. Bishop, A Trip Through China.

February 28. Wm. Curtis Farabee, My Three Years with the Indians of the Amazon Forest.

March 7. Stephen B. Luce, Jr., Tales of the Heroes of Ancient Greece.

March 14. Frederick Monsen, Pictures of Indian Life.

March 21. Fay Cooper Cole, My Life Among the Wild Tribes of the Philippines.

March 28. H. U. Hall, Traveling by Reindeer Sleds Through the Siberian Wilderness.

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UNIVERSITY OF PENNSYLVANIA

THE MUSEUM JOURNAL

PUBLISHED BY

THE UNIVERSITY MUSEUM

FOR ART
FOR SCIENCE
FOR CIVILIZATION

PHILADELPHIA
DECEMBER, 1916

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¶ The Purposes of the University Museum

¶ To give to Philadelphia a Museum that will be in keeping with its traditions, that will answer to its needs and that will sustain its historic repute as a Stronghold of Civilization.

¶ To assemble collections that will illustrate the great achievements of Mankind in the field of Art, and to cherish and preserve this Heritage from the Past.

¶ To trace the origin of Civilization and to reconstruct the successive steps and the varied episodes that have attended its development.

¶ To encourage the Arts; and to demonstrate the debt that Civilization owes to the Artist and to the Craftsman.

¶ To encourage Research, to send out expeditions to excavate the buried cities of Antiquity and bring to light the records of the Past; to gather and preserve the early Arts and ancient Lore handed down by the vanishing races of Mankind.

¶ To promote a knowledge of Humanity and to disseminate that knowledge by lectures, by publications, by cooperation with the schools and through the medium of the University; to illustrate the unity of all races and the diversity of their Art, to inculcate a better and more sympathetic understanding of all peoples and to afford a just measure of the contribution that each has made to Civilization.

¶ By bringing the people into direct contact with the visible Past and its prolific life, to exert a civilizing and humanizing influence upon our manners and habits of thought.

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THE
MUSEUM JOURNAL

VOL. VII PHILADELPHIA, DECEMBER, 1916 No. 4

THE YEAR'S PROGRESS

EACH number of the JOURNAL contains a record of events at the Museum during the preceding quarter and by reference to the four issues for 1916 the reader may review the developments which marked the year's progress and thereby form an estimate of the net results.

The object of the present summary is nothing more than to count up the gains of the year for the purpose of comparing them with the gains of earlier years. This comparison shows a marked acceleration in the Museum's growth during 1916.

One of the most important events of the year in the history of American museums was the opening of the new section of the University Museum and the installation, in Harrison Hall, of the exhibition of Oriental Art.

During the early part of the year seven expeditions sent out from the Museum were at work in different parts of the world, including Asia, Africa and South America. Three of these have since returned bringing with them the results of their explorations and of their discoveries. The other four have continued their work abroad in their several fields and will carry that work into 1917.

The Eckley B. Coxe, Jr., Expedition to Egypt has now finished two seasons of work at Dendereh and at Memphis and will continue its work during 1917 under provision made by Mr. Coxe. The results obtained in 1916 from this expedition of the Museum have been of great interest and importance. The collections, however, still remain in Egypt owing to the danger of transportation by sea.

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In each of the following particulars the year's gain has been in excess of the previous year's gain and greatly in excess of that recorded in any earlier year of the Museum's history.

1. The increase in the endowment.
2. The number of expeditions in the field.
3. The amount of funds used for expeditions and for purchasing collections.
4. The number of specimens acquired by purchase.
5. The number of specimens acquired from expeditions in the field.
6. The number of collections presented to the Museum.
7. The total value of the acquisitions.

The sum spent for expeditions and collections during 1916 was $160,000. The sum spent for the same purposes in 1915 was $116,000 and in 1914, $60,000.

A comparison of the value and extent of the additions to the collections by purchase and by gift and through expeditions in the field would show a still greater increase. The total value of accessions from all sources during 1916 is estimated at $300,000.

The increasing activity and usefulness of the Museum has been accompanied by increased cost of maintenance. The Budget for the current financial year calls for $70,000, against $67,000 for 1915. These figures indicate the economy which attends the development of the Museum's work and waits on all of its activities. As a result of its present accelerated rate of growth, its greater usefulness and the larger and more important tasks to which its management is committed, the estimates for next year will show a bigger increase in the Budget.

It is believed that the larger and more liberal service which the Museum now renders, as an instrument for intellectual welfare and broader education, justifies an effort to increase the annual membership and makes it proper to look for more patrons and benefactors and still further to encourage an interest in the work.

A proposal has, therefore, been approved by the Executive Committee and by the Board of Managers to proceed at once to raise an Endowment Fund of $2,000,000, a building fund of $500,000, and a fund for increasing the collections of $1,000,000. Next year's report will show to what extent this proposal meets with the approval and support of the people of Philadelphia and of everyone who is

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interested in this liberal movement for the national welfare and for the general good.

It has been pointed out in another number of the JOURNAL that one of the duties of a public museum is to make itself and its purposes known to the public and to induce visitors to enjoy its privileges and to profit by its opportunities. In keeping with this idea several methods have been pursued to keep the public informed, to attract people living both in and out of the City to enjoy the exhibitions and to educate them in the use of the Museum. The result is shown in an increased number of visitors and yet that number remains very far below what it ought to be. The total number of visitors for 1916 was 64,044, which shows an increase of 18,361 over 1915. It has been conclusively proved by experiments going back to the beginning of 1913 that the number of visitors depends on direct advertisement.

At the end of 1915, when the new Auditorium was opened, a larger cooperation was established with the public schools. The facilities afforded by the new Auditorium with its educational equipment including both motion picture apparatus and stereopticon, proved so effective and so admirable that many of the principals and teachers who had already given their sanction to the plan, displayed an interest and an enthusiasm for our work which carried with it the most satisfactory proof of its usefulness. At the illustrated lectures which were provided for the children on Wednesday afternoons the entire accommodations of the hall were reserved in advance either by the elementary schools or by the high schools. The keen interest which was displayed by the children showed itself in their orderly behavior, their close attention and their evident delight.

With the aid and encouragement derived from this experience a new and larger program was arranged for the schools during the season of 1916–17 and this season has begun with complete success and with highly satisfactory results both from the standpoint of the Museum and from the standpoint of the schools.

The Saturday lecture course, now a well-known institution, made a record last year in the size of the audiences and the number of people in attendance.

The Curators of the several Sections, apart from the field work in which they have been engaged, have been occupied in cataloguing the new accessions, preparing reports and handbooks and publish-

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ing studies relating to the collections in their charge. The JOURNAL has given its readers contributions from the Curators upon objects newly acquired or upon their explorations in the field.

Besides the JOURNAL, five volumes were issued during 1916 in the scientific series of the Museum.

In the last number of this JOURNAL it was our sad duty to record the death of the President, Mr. Eckley B. Coxe, Jr., and to define briefly his interest and relationship in the Museum. That generous interest has since received a very striking and substantial proof in the announcement that Mr. Coxe had left in his Will a sum of $500,000 to the Museum as an endowment. Thus, at the close of the most prosperous year in the Museum's history, its foundations are strengthened and its resources enlarged by a permanent provision. This endowment will act as an inspiration for the coming year and a strong support for those who are interested in a larger, better and happier future for the Museum.

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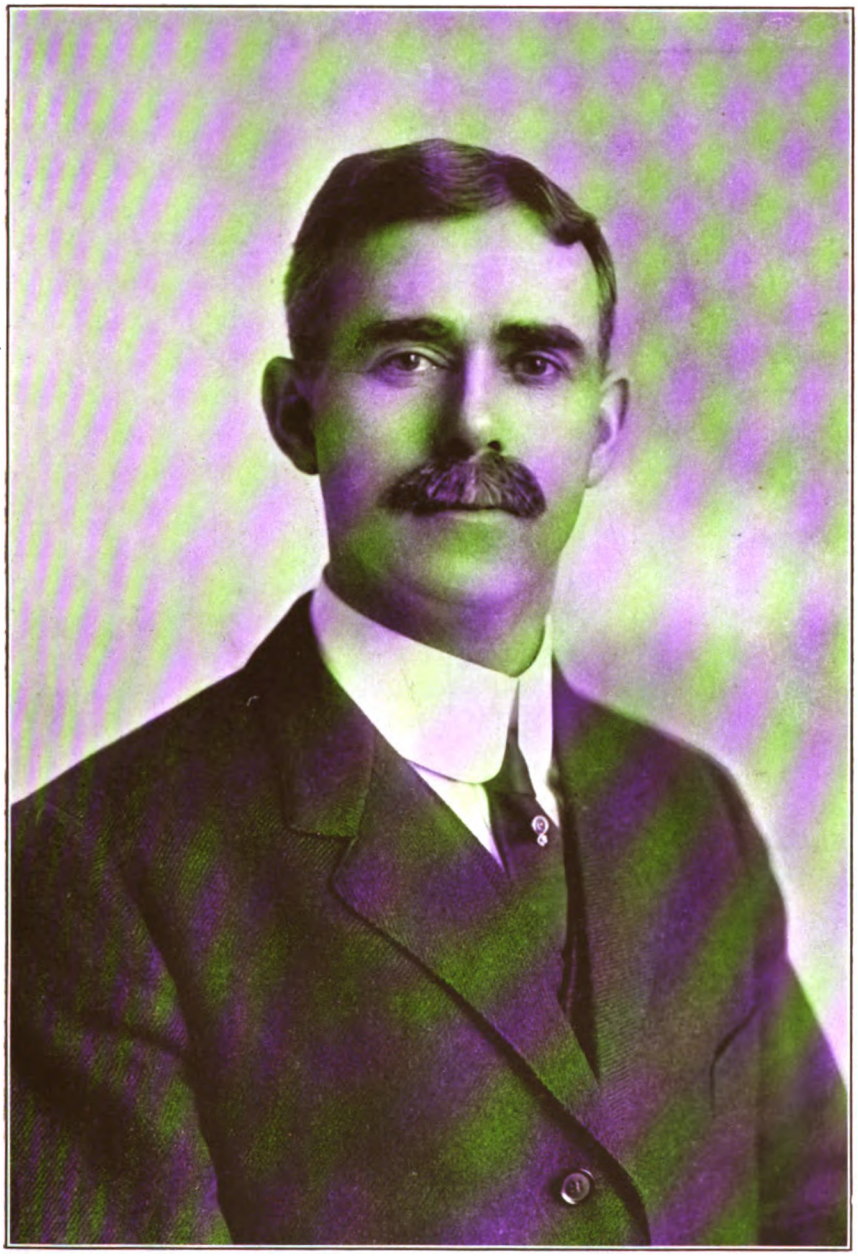

DOCTOR WILLIAM CURTIS FARABEE
Leader of the Amazon Expedition.

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THE AMAZON EXPEDITION OF THE UNIVERSITY MUSEUM

THE Indians of South America are physically so similar to those of North America, and so unlike any other possible progenitors, that we must believe that their ancestors migrated across the Isthmus of Panama in very early times. That migration ceased so long ago that little resemblance remains in the languages or customs of the two continents. At the time of the Discovery a return migration was in progress. Indians from the Southern Continent were found passing over to the islands of the West Indies.

When Columbus landed in the West Indies the people whom he found were the Arawaks and the Caribs.

The Arawaks, who were found trading from Cuba to the mainland of North America, can be traced through Venezuela, the Guianas, across the Amazon and the highlands of Brazil, to the Paraguay river; from there westward to the very foot of the Andes mountains.

The Caribs, at the same time were pressing the Arawaks and were also beginning to occupy some of the islands of the Antilles. They, too, by means of their language, can be traced southward to Central Brazil and westward about as far as the head waters of the Amazon.

The great Tupi stock, whose original home was in the very southern point of Brazil, pushed their way northwards through other tribes of the uplands and around the three thousand miles of coast into the Amazon valley, thus coming into contact with the two other great stocks, and so mingling customs and cultures.

To the complications due to these great prehistoric migrations of peoples are added others of more recent date.

The early explorers of the Pacific coast found rich stores of silver and gold in the hands of the natives. When this supply was exhausted the newcomers began to look about for the sources of this great wealth, and soon the whole continent was overrun by bold adventurers seeking their fortunes. The heavily forested lowlands of the Amazon valley contained no gold and remained unex-

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plored. Two hundred years after the Spaniards had occupied the Andean region to the sea, only five parties had traveled down the Amazon. The Indians outside of this region were dispossessed and enslaved. Many individuals, families, and even whole tribes sought refuge and freedom in the dense forests of the interior where they were secure for a time.

When those unfortunate ones, doomed to slavery, had been forcibly Christianized, the zeal of the missionary carried him across the Andes into the jungles of the interior where even the slave hunter feared to venture. The first missions were established in 1638. During the next one hundred and fifty years the good brothers labored, with varying success, at their task of imposing their religion and civilization upon the simple inhabitants. The various tribes of natives were collected into large villages without regard to their languages or customs, then the heads of the missions would report that so many had become civilized. The natives often objected to these methods, rebellions took place and some of the priests were killed. But as time went on the civil authorities became strong enough to enforce obedience to the established regulations.

The soldiers and traders who entered this region carried with them, in addition to their goods and common vices, various contagious diseases which spread rapidly among the closely confined Indians and caused the death of hundreds in every village. Finally, when no relief was offered to them, they, in desperation, killed the missionaries, deserted the villages, and returned to the forests and to their former barbarism. Today there is scarcely one native to be found where a hundred were reported to have been in the seventeenth century. More than a hundred tribes recorded have disappeared entirely, while those remaining, on account of their enforced contact with civilization and with tribes of other stocks, have lost many of their former customs and beliefs.

In the lower Amazon conditions were very different. On account of the need of laborers in Brazil and because of some difficulties the early occupants had with the native Indians, the Portuguese government, by royal decree legalized slave hunting and gave the proceeds of the enterprise to the officials and soldiers. As a result of this arrangement what had before been a mere pastime, now became a recognized business. The Jesuit Fathers who had previously established missions among many of the tribes, pro-

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tested so vigorously against the outrages of the soldiers that they themselves were expelled from the country.

The Indians, thus left without friendly advice or assistance, attempted to defend themselves against their oppressors, but with the usual result when bows and arrows are matched against more modern implements of warfare. One example will suffice to show the bitterness and hopelessness of the unequal struggle. In 1664, an expedition under Favalla, sent against some Indians of the lower Amazon, burned three hundred villages, killed seven hundred men and carried away two hundred slaves. Thus at one blow a whole tribe was wiped out of existence. Unable to protect or defend themselves against such heartless marauders many tribes retreated farther into the interior among tribes of other stocks. For instance, a Tupi tribe from what is now the state of Maranhaõ, fled more than a thousand miles and established themselves on the large island of Tupinambarana in the Amazon river.

Thus the pressure of the Spaniard from the west and south, the Portuguese from the east and the French and Dutch from the north drove one tribe in upon another, or caused long migrations into new territory. No doubt the remnants of many tribes were absorbed and lost their identity while the cultures of others were greatly modified. At this time, however, a large part of the interior had not been greatly influenced by white man's civilization.

The development of the rubber industry in the last two decades has brought new regions under the control of the white man and the primitive inhabitants into contact with a new kind of life and into close touch with some of the most undesirable representatives of a higher civilization. As a consequence of the attempt to bring the Indian population into the service of the white men, conditions developed in remote regions, in which blood feuds and reprisals on both sides rendered life insecure for all parties concerned. These things together with the capture of women and children and the importation of diseases have hastened the extermination of the natives until today there are very few living in the rubber regions along the banks of the Amazon and its principal tributaries. On account of reports of bad treatment by the whites, many tribes living outside of these regions are either suspicious and afraid, or unfriendly and difficult of approach. This prejudice must first be overcome and their confidence secured before any attempt can be made to study their customs and beliefs. One is forced to make

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long journeys to out-of-the-way places to find tribes which have been least under the influence of civilization and even then one must exercise great care to obtain their confidence. In some places it is necessary to send friendly Indians in advance to prevent the others from running away into the forests before they can be seen.

This statement of the former migrations with their consequent mingling of cultures and the present condition of remaining tribes will give some idea of the difficulties and of the importance of the work undertaken by the University Museum's expedition.

The Work of the Expedition.

The members of our expedition, Dr. Franklin H. Church and myself, reached Para at the mouth of the Amazon river, June 23, 1913, and upon the invitation of the Honorable George H. Pickerell, American Consul, established headquarters at his office. A month was spent in passing customs, getting acquainted with government officials, transportation companies and owners of concessions up river. Before leaving the United States complete arrangements had been made through the Brazilian Embassador, Dr. D. da Gama, to have the scientific equipment and supplies enter without examination and free from duty. The local federal authorities were directed by the Department of State at Rio de Janeiro to render us every possible assistance and these directions were carried out with sympathetic interest. The Governor of the State of Para, Dr. Eneas Martins, invited us to the Palace and offered every possible assistance. He had an intimate knowledge of all the ethnological work that had been done in the valley and fully appreciated the value of scientific investigations. He made many valuable suggestions and gave us letters to officials and individuals in different parts of the state. Without such letters of recommendation one is often unable to obtain assistance.

The Consul, who has resided in Para for many years and is personally acquainted with all the influential people and is greatly respected by them, was of inestimable value to us in presenting us and our cause to those who could give us information and assistance.

In Para and Manaos one meets many Brazilians who have been educated in Europe or America. The Governor speaks French and English as fluently as he does Portuguese. Quite naturally young men go to Europe and particularly to France, rather than to America, yet there are a number of graduates from the University

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of Pennsylvania, Columbia and Cornell. These and the other educated men from Brazilian colleges appreciated the work we were trying to do and it was a pleasure to associate with them.

At the Goeldi Museum we found co-laborers who welcomed us to share in the scientific investigations of the country. There was no evidence of jealousy or any desire to protect the region for their own studies. They are all doing most excellent work. Dr. Huber, the curator, whose untimely death occurred during our stay, had an international reputation; his successor, Dr. Snethlage, is a noted zoologist and explorer. Dr. Ducke also has an enviable reputation as a botanist.

The steamboat companies carried our collections and baggage free, some of the companies gave us free passage also, while others reduced the rates. The A. S. N. Co., an English concern, which operates ships on all the large rivers was of greatest assistance to us. The Booth Steamship Company carried all our collections free from Para, Manaos and Iquitos to New York and took a particular interest in the work of the expedition.

We had expected to make our station at Manaos, some nine hundred miles up stream in a more central location, but upon our arrival we learned that Para was the business center of the valley and that there was a strict quarantine regulation against Manaos on account of yellow fever. For this reason we changed our plans. We found Para a healthy well regulated city of 125,000 inhabitants, with all the modern conveniences and comforts of life and travel; such as excellent docks, tramways, parks, hotels and open air restaurants. Many things necessary for our outfit might better have been purchased in Para. One must always carry his own scientific instruments with him, but other supplies, such as canoes, clothing and food can always be obtained as needed. One sooner or later adopts the customs of the country and the sooner the better for his convenience.

From Para we made several journeys to the Indians in the interior, traveling first by steam launch, then by canoe to the villages. Often it was necessary to make long trips on foot, across country, from one village to another.

Rio Branco

The first journey was made to the tribes living in the great grassy plains of Northern Brazil and Southern British Guiana, an

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area of 30,000 square miles occupied by the two largest tribes of the whole region, the Macusi and the Wapisiana, representatives of the Carib and the Arawak linguistic families. To reach these tribes we traveled by English ship to Manaos, from there we took a small cattle boat and went up the Negro and Branco rivers to Boa Vista, formerly a mission station, then a penal settlement, and now the center of the cattle industry and the site of an agricultural experiment station. We first attempted to reach the Macu Indians at the head of the Uraracuera river on the Venezuelan border but we were prevented from doing so because of rapids and low water. After reaching a point three days by canoe farther up stream than white men had previously gone, we were forced to return. Our time was well spent, however, as we had an opportunity to study some representatives of the Azumara, Porokoto and Zapara tribes. There are but two full blood Zaparas remaining—two sisters. Thus the tribe dies with them. When we asked why no men were left they told us that some years ago a white man accompanied by a soldier came to carry away some of their children for servants and when they objected a fight ensued. The white man seized a girl, one of the two sisters remaining, and he was shot through the body with an arrow. He was defending himself with a knife and cut the girl's arm as she broke away from his grasp. The soldier fled but was followed and killed. The other succeeded in getting to his canoe. He pushed off and floated down the river. As he was unable to pull out the arrow, he cut it off on both sides of his body. The next day he reached his brother's house but soon died. When the event was reported to the government, soldiers were sent to the place and captured all the men who were taken down river for trial and punishment. None of them ever returned.

The two Azumara men said they were brought there when small boys but they had no idea from whence they came. Curiously enough they have remembered their language which seems to be a dialect of Carib.

One day while waiting for the Indians to find a way around the rapids I noticed three large spiders on the rocks near the water's edge and wondered what they could be doing in that particular place. They seemed to be waiting for something in or on the water. After watching them for two hours we saw one of them catch a fish an inch and a half long and devour it. They made many attempts before the fish was finally landed.

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At the point where the Uraracuera and the Takutu unite to form the Rio Branco, there is seen the ruins of the ancient stone fort, St. Joaquim, erected in 1775 by the Portuguese to protect north Brazil from invasions by the Spaniards or the Dutch. At that time the Government sent up a few cattle which were taken care of by the occupants of the fort until the great revolution when they were allowed to run wild for some years. They increased very rapidly during this time. Later on a large number were brought together on the Government ranch but many were taken possession of by private persons and thus the foundations were laid for the great ranches of the present.

British Guiana

Our first visit to Guiana was made from Boa Vista across country on horseback four days to Melville's ranch at Dada Nawa, on the Rupununi river. The Brazilians ride on a slow trot. From morning to night, day after day one jolts along until he feels that his shoulders will surely bounce off. On the way we crossed many streams and two rivers. The Takutu was so deep that we took off our clothes and saddles and carried them on our heads to keep them dry while the water went over our horses' backs.

A few years ago, a mission was established on the British side of the Takutu, among the Macusi Indians. Father Mayo received us kindly and recommended us to the Indians. He also gave us one of his boys, a little fellow about twelve years of age, to accompany us and act as an interpreter. He was glad to go because we would pass through his village where he could see his parents. We attended Mass in the morning before leaving and were surprised to hear the boys reciting Latin and all singing English. The Macusis are the best musicians of all the tribes and soon learn to sing hymns and to pick up any songs they chance to hear.

We spent three weeks visiting the various villages about the foothills of the Kanuku and Pakaraima mountains. Their houses are built out in the open savannah where they have the advantage of the cool winds and are away from the mosquitoes and other forest insects. They make their fields in the forests where the soil is more fertile. On our way we crossed Lake Amucu and visited the fabled city of gold, the El Dorado of the Spaniards and Sir Walter Raleigh. During the wet season there is a broad shallow lake but when the

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From a Photograph by H. P. C. Melville

FIG. 180.—The Savannah country of British Guiana.

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rains cease it becomes a great meadow with numerous small streams lined with magnificent Eta palms. No doubt the "city whose temples and houses were overlaid with plates of beaten gold" was then, as now, mudwalled and unimportant.

Among the rocks of the nearby mountains, we discovered numerous urn burials. The Macusis today bury the dead and have no traditions of other forms of disposition of the dead. This is a

FIG. 181.—A Macusi cane press.

puzzle because glass beads were found with some of the bodies thus proving the burials comparatively recent.

In marriage the Macusis are for the most part, monogamous. The Chief, or head man, may have two or even more wives but other men have but one. A man must marry a woman in another village and must live in her village. Descent then is in the female line. They practice that curious custom of the couvade. When a child is born, the father takes his bed for a month and refrains from eating anything except the most delicate foods. The mother meanwhile takes care of both the child and its father. It is a

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strange custom which is common among all the tribes in this region and seems based upon some fancied mysterious connection between the child and its father. They say that it would injure the child if the father ate coarse foods just as much as though the child ate them himself. They have another custom which is difficult for us to appreciate, and that is, shaving off their eyebrows. Some say they can see better without them while others think them unbecoming. Some paint a heavy black line on the brows.

FIG. 182.—Resting at the last Wapisiana village.

The nearest neighbors of the Macusis are the Wapisianas who are Arawaks and belong to an entirely different linguistic group. These two tribes, while not necessarily enemies, regard each other with aversion, and have very little in common. By those who know both tribes, the Wapisianas are considered to be more industrious and less inclined to adopt the vices of white men. Under the guidance of British officials they are learning to work for wages and to appreciate the value of money and labor. No one is allowed to trade with the Indians or to employ them without permission from the government. Thus protected and guided they will soon

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be able to take care of themselves and to assist in the development of the country. They are collecting rubber and selling it for cash. In 1914 they received $25,000 gold for labor and rubber. They are honest, faithful in the performance of contracts, and are rapidly developing into desirable citizens. They owe their success to the care exercised over them by Mr. Melville, the Magistrate and Protector of Indians for this district. He has lived among them for twenty years and appreciates their worth. He is ably seconded by Mr. Ogilvie under whose guidance they have learned to work rubber and to improve their fields. Each year he takes some of them with him to Georgetown, where they come in contact with the outside world and learn prices and values for themselves.

Their social system is interesting because they are required to marry those of blood relationship. A man must marry his cousin of another village and take her to live with him in his village. He thus marries either his father's sister's or his mother's brother's daughter. He may and often does marry two sisters, or he may marry two cousins, or he may marry outside of the family if there are no cousins. The first wife is master of the household but each has her own fireplace and furnishes a part of the food for their husband. They too practice couvade but the period of careful eating for the father continues another year after leaving his bed. Some of our men had great difficulty in securing sufficient unforbidden food on the trails. They could not eat anything shot with a gun or an arrow so they were confined to a diet of fish and fruit.

They do not worship the Creator and make no offerings nor petitions because they say he knows what they need and there is no use disturbing him all the time about it.[1]

Trip to the Interior

At Dada Nawa we were fortunate enough to persuade Mr. Ogilvie with some of his Indians to undertake a journey with us to visit the tribes to the eastward living in the untraveled forests of Brazil. He had previously been over the divide and was acquainted with the first part of the trail.

On November 19, 1913, we left Melville's ranch with a pack train numbering sixty-two men, women and children, to carry across the savannah five days to a point on the Cuduwini river, where

[1] For the story of creation see Vol. VI, No. 1 of the JOURNAL.

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Ogilvie had two canoes which he had been using in his rubber explorations. Many whole families went with us to the river. As there was no one left behind to care for them, the small children, young dogs, chickens and other pets had to be carried along. Five babies rode on their mothers' shoulders above the packs and held the mothers' hair to prevent falling off. On the way we passed through their traditional home where every mountain was sacred. We sacrificed tufts of grass at many shrines and stepped high over the trails of evil spirits. At the landing place we spent a day

FIG. 183.—Our "captain," an Ataroi, and a Wapisiana head man.

arranging our canoes and saying good-bye to each one of our numerous friends. The water in the river was so very low and the passage so difficult that we decided to take fifteen men with us instead of the ten as originally planned. Besides the many sand bars over which the large canoe must be dragged, there were hundreds of fallen trees which had to be cut in two to open a passage way. When a log was cut nearly through all the boys would walk out on it and break it down; thus all would be plunged into the deep water. It was great fun for them and made up in a measure

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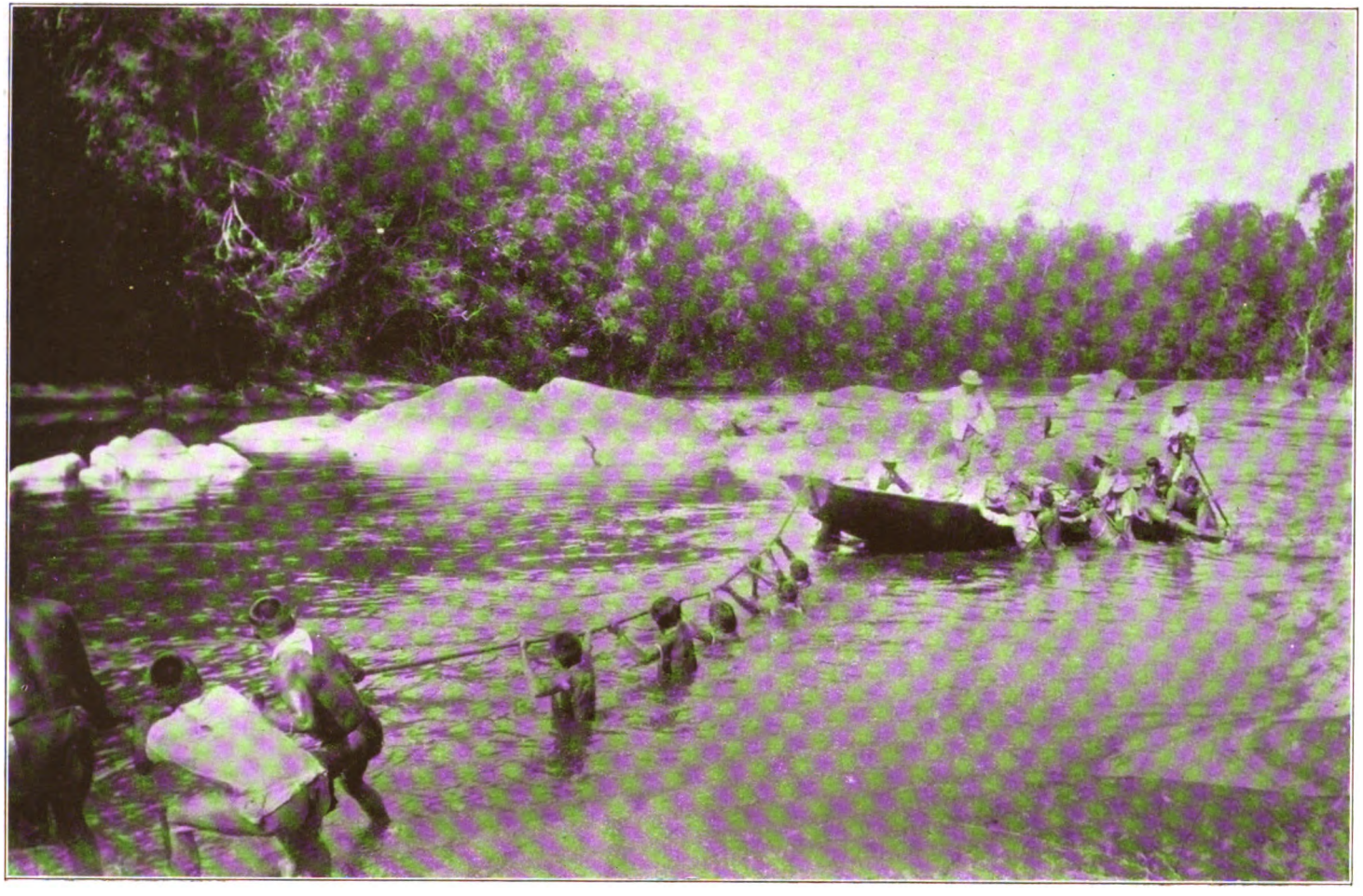

FIG. 184.—Ascending the Essiquibo rapids.

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for the hard labor of hauling the canoe through the shallow water or over the sands. The banks were lined with thorny palms, many of which had fallen into the river and become embedded in the sand. These gave great trouble to the men in their bare feet. In the shallow water there was always danger from the sting ray and in the deeper water from the electric eel. When either of these was discovered a man went ahead with a pole to clear the way. The Indians fear these much more than they do the alligators and big snakes.

There were no Indians living along the river so there was plenty of game. Dr. Church, with two boys in the small canoe, went before to hunt and killed many ducks, monkeys and pigs. The pigs often go in large droves. In one place we got seven of them and feasted on fresh pork until all the men were sick. Fish also were very plentiful in the deep pools. The best of these was the aimara, a vicious fellow weighing twenty pounds or more and having large sharp teeth. The Indians never fish for him from their small bark canoes but from the land or a sloping rock where they pull him out and kill him with a club. He takes the hook and follows in without a struggle but when near enough jumps for the hand pulling him.

After twelve days of hard labor we reached the Essiquibo, a broad rapid river, and ascended it to the first Waiwai village near the Brazilian boundary. The river is a series of rushing rapids with long quiet pools between. The going was either very good or very bad. Where it was possible we used a long bush rope, or vine, to pull from one rock to another or to track along the bank. Where the water was not too deep we used long poles to push the canoe. The deep pools were thought to contain great spirits which would come up and catch men as they passed. The particular places were all known and every day we made long detours to avoid them. Some places it was necessary to pass at certain times of day. The Indians said that when Schomburgk went up the river (in 1839) his men would not pass one place until he made an image of a young woman and offered it in sacrifice to the spirit. The place was pointed out and we passed in safety because of this offering.

On the Essiquibo, there are two villages of the Tarumas. When we arrived, we found a bunch of leaves hanging on a tree at the landing place to announce the death of a member of the tribe; just as we hang crape on the door for the same purpose. Accord-

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FIG. 185.—The old chief of the Tarumas and his son-in-law, who will be the next chief.

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ing to their myth men were not created. There were two brothers in the beginning, the elder of whom made the animals, plants, mountains, etc. These two went fishing in one of the deep pools and the younger brother caught a woman on his hook, took her home with him and made her his wife. From this pair descended the whole human race. She was the daughter of a great serpent, the anaconda, hence they revere the snake today and do not kill it. When they see one they speak to him and call him uncle but do not disturb him. All sickness comes from evil spirits called Kenaimas which reside in a mountain near by and no one would dare to venture near the place. These spirits take the form of little men and go about at night. No one travels alone. The spirit will not attack two persons; even a small child is sufficient to keep him away.

One of the Taruma chiefs and five men joined us for the trip to the Waiwais and supplied us with more food. Here we met the chief of the first Waiwai village, who had come down to get cassava cuttings for a new field he was making. He said he would go to the next village with us but the field would have to be planted first, as the cuttings would dry up. So we, twenty-four in all, went to work and in one day, working with sharp digging sticks, planted the whole field of three acres. They understand how to improve their crops by changing the seed and the location of their fields.

A half day above the village we built a shelter and cached food for the return trip. The crooked trail which no one unacquainted with the country could possibly follow, led first along a small river, which we crossed and recrossed many times and then over a high hill and down to the river again where we camped for the night. The following day we came to a large lake where an evil spirit resided. It killed so many people that they finally threw a young woman into the lake alive. She is still living there with the spirit and he is satisfied. There had been a great forest fire about the lake which had killed the trees for miles. The dead trees had fallen across our path until it was very difficult to travel. That night we slept at the foot of the Acarai mountains that form the boundary between Brazil and the Guianas. During the night the temperature went down to 68° and we built fires under our hammocks to keep warm. In the morning we crossed the divide at an elevation of 1,600 feet in Lat. 1° 11′ N. and Long. 58° 30′ W. From the top we got a good view of the low mountains extending from southwest to northeast at an angle of about 35°. While resting here some

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large black monkeys appeared and Ogilvie shot one. As often happens with them, the prehensile tail held fast for a time after the monkey was to all appearances quite dead. We sat down to wait for him to fall but an eagle happened along just at that moment and carried him off. At another time I shot a powis, a turkey-like bird, and when it fell a jaguar gathered it up and ran away before I could get him.

The day after crossing the divide we arrived at the last Waiwai village and found them in the midst of festivities on account of the

FIG. 186.—Landing place of the first Waiwai village—British Guiana.

visit of a Parikutu chief and his family. As we approached our chief went before blowing his whistle as is the custom among all the tribes. Each tribe has its own signals. He was unable to tell them anything more than who he was and they were surprised to see such a large party and in it three white men. Some of them had seen Ogilvie before and were not afraid. The two chiefs talked for some time about us, then messengers were sent to the different houses, to the workers in the fields and to the hunters in the forest. In a few minutes the women brought food which the chief gave to

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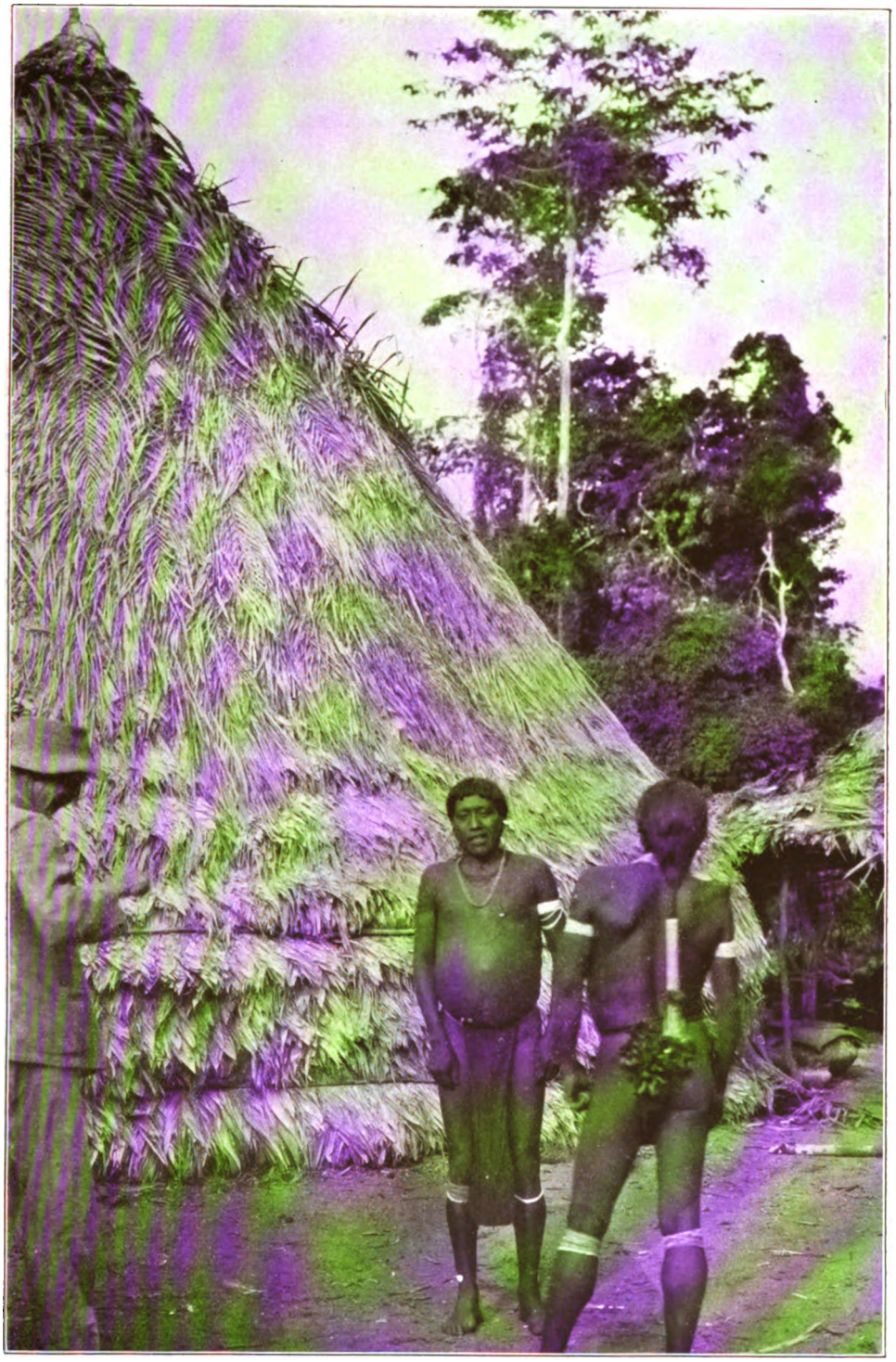

FIG. 187.—Ogilvie and the two chiefs, last Waiwai village—Brazil.

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our chief and he to us. As our party of twenty-eight was too large for the men's house they sent men to clear a camping place for us nearby on a small stream. They should have danced all the afternoon but for our coming. As it was they postponed it until dark and then danced until midnight. The men and women dance at the same time but not together. The women sing and the men blow flutes. Each leader carries a rattle to mark the time. After dancing for some time they stop and take a drink without breaking line. The women dance forward and back moving at the same time around a small circle; while the men dance in a large circle around the outside of the women. Our men did not know the dance so could not take part in it. Afterwards they gave an exhibition dance of their own, explaining that it was impossible to do it well without their own women to sing. It was an enjoyable occasion for everybody. We enjoyed it because it was Christmas eve and reminded us of somewhat similar entertainments at home. Christmas day we celebrated by working hard in getting photographs, measurements and collections because our party was too large to feed and must return with the collections the following day. One can not appreciate Christmas with the thermometer at 94°.

Some of their own people went fishing and others hunting to get food. To catch fish they poison the water and kill the fish. The poison is put in the shallow water above a deep pool and within ten minutes the fish are floating on the surface. Everybody plunges in and gets all the fish he can gather up in his small net. The poison does not affect the flesh. The fish, a mile below, are unharmed. It is often reported that there is great danger to travelers in drinking river water because of this fish poison, but there is little or no danger because the water is safe a mile below and safe enough, by the time the Indians get away, at the place itself. There are streams which are poisoned by certain fruits and are dangerous, but they are known and indicated by the Indians. One soon learns to profit by the wisdom of his companions.

Trading time brings everybody to see the new things and soon sends them scurrying to find something to exchange. The chief often does the trading for all, passing out whatever they wish to see until the trader wonders what will become of all his wares, but nothing is ever lost, each object comes back with the particular thing to be traded for it. It is very difficult to get two things for one regardless of values. In paying for labor the length of time

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FIG. 188.—A Waiwai dance.

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makes little difference. If you give one man a knife for packing five days another will accept the same pay for eight days without complaint. Time is of little consideration. When trading the observer has his best opportunity to study the real character of the people. He sees the polite consideration of one for the other: the parents for their children and for each other and all for the chief. If a wife has made something for her husband he will not exchange it without her consent and then get something for her. They vie with each other in getting things for the children. These people have no punishments for crime because no one ever does wrong. There is no punishment for theft because no one ever took anything that belonged to another. "No one allows his feet to stray from the trail of his ancestors."

The Parikutus who were visiting here had knives which had undoubtedly come from French Guiana. They told us of their villages and others to the eastward and we decided to visit them. As there were no trails and we should have to make canoes and live on the country by hunting and fishing when away from the Indians, we were compelled to reduce our party to the smallest number possible. Dr. Church with our Brazilian boy, Joaquim, and all the Indians, except the four that Ogilvie had selected to take with us, returned to Dada Nawa taking the collections, photographs and note books. After six weeks of hard work, sick from fever and exhaustion, he arrived at Melville's ranch where he recuperated for several days and returned to Para.

Ogilvie, the four Indians and I moved over to the Mapuerwau river on January 9th and made three woodskins, or bark canoes, for our journey down stream. The canoe is made of one piece of bark taken from a large tree. It was not always desirable to fell the trees because there are so many vines running from tree to tree that it is often necessary to cut three or four trees to get one down and then it may fall against another tree and split the bark. A section of bark twenty or more feet in length, extending two-thirds around the trunk, is taken off and pointed at the ends. About three feet from either end a groove is cut through the coarse outer bark around the sides but not across the bottom. Then a fire is built inside to soften the inner bark and the ends lifted up. The softened bark folds inside and makes a waterproof joint. The ends are held up by small poles, which are tied along the sides from one end to the other. Short poles are tied across to hold the sides

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apart and pieces of heavy bark or poles are bent across the bottom to prevent it from folding up in the middle. This makes a serviceable but a very cranky craft which rolls over with the slightest provocation.

Ogilvie and the captain of our men went first because they carried the shot gun, my boy and I second and our other two behind. On the larger rivers Ogilvie and I traveled along different sides to hunt and the third canoe spent the time fishing. In the rapids we kept as close together as possible to aid each other in case of accident. Along the smaller rivers there was hard work in the rapids but little danger except that of splitting the canoe against the rocks and logs.

We traveled five days down the Mapuerwau and up the Bonawau to a landing place where we sank our canoes to prevent their cracking in the sun and started across country to the first Parikutu village which was reached in four days over an easy trail. The old chief here told us that the knives and beads they had were made by the Diaus who lived a long way to the eastward. He had spent four moons in an attempt to reach them but had failed on account of the great distance and the difficulties of travel. The chief and one of our men had known each other as boys. At their last meeting, probably twenty-five years before, one had bought a dog from the other but had not since had an opportunity to pay for it. Settlement was made as soon as formal greetings were over.

Another day's journey took us to the Mapidian village. Here we learned more about the Diaus who still had the credit for making knives and beads. The chief's son had two Diau wives but they had been brought when small girls to a neighboring tribe and knew nothing of their own people. Everything new or strange was attributed to them, so we determined to visit them if possible. The language of the Mapidians sounded very familiar and proved to be a dialect of Arawak. All the others in the region speak dialects of Carib. They have a tradition that they came from east of the Essiquibo. The Atarois have a tradition that a part of their tribe went over the mountains to the southeast in ancient times and disappeared. As their language is more like Ataroi than Taruma or Wapisiana, they are no doubt the lost Atarois. Although they had not seen whites before, they showed no nervousness whatever and treated us with the greatest hospitality. Every morning the chief came for us to eat with him. He was too old to go with us

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FIG. 189.—The Characteristic Face Painting of the Waiwĕs.

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himself, but provided men and food to take us to the next tribe. We gave him some presents which he greatly appreciated. In parting he said, "I am an old man, I shall soon go up above, and when I get there, I will watch for you, and when I see you coming, I will tell Tumincar (the Creator) how good you have been to me." The World calls him "a naked savage" and the Church, "a heathen."

No one had been across to the Waiwĕ village for several years and there was no trail, but some of the men knew the direction. When there is no trail it is difficult to travel in the lowlands because of the thick growth which requires cutting before one can pass. Hence our guides led us the longer way around and over rough rocky hills where there was little cutting but much climbing to do. One day and night were spent on a mountain without water. When we reached the village after several days climbing we found only the chief and his wife at home. The others had gone down the river that morning to fish and would not return for three or four days. The next forenoon one of them came back, saying he had dreamed that strangers were in the village and had come to see if it were true. When he saw us he was afraid to come up until the chief went for him. He at once returned for the others. None of these tribes had ever seen guns and were very much impressed by them. They would point out game for us to shoot but no one would eat the game we killed. There were not enough Waiwês to carry our packs so a part of the Mapidians continued with us to the next Parikutu village. When the others were ready to return four of them came to me and requested that I remove my clothing. Not knowing what they had in mind I complied with their wish. Then, I discovered that each man had in his hand a bunch of wet raw cotton which he proceeded to rub over my body from head to foot. At the time, I had not the slightest idea what it was all about but later learned that they had baby boys at home whom they would rub with the same cotton so they might grow to be big strong men. As I am six feet one inch and they but five feet four, I appreciated the compliment.

Our way to the next village led for two days along a river too deep to ford. The guides knew of a place where two trees had fallen from opposite banks of the river and met in the middle thus forming a passage way across. Of all our log crossings this was the most difficult. The river was deep and very rapid. The logs were waist deep in the water. One had to feel with his feet, climb over the

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limbs and change logs in mid stream without being able to see a solitary thing. The second day out one of our Waiwĕ boys was struck by a very poisonous snake, the Jararaca. We at once administered white man's remedies. Later the chief gave him their own treatment which consisted in spitting at the wound, blowing on the different joints of the body and singing songs. This appeared to be more soothing than our treatment but I imagine our lance and hypodermic were more effective. We built a shelter for him and left him there, with his wife who happened to be along, until the

FIG. 190.—Two Chiefs.
Arawak Carib

chief would return two weeks later. We never learned how he found him.

At the Parikutu village we were delighted to find the chief spoke Taruma. His father had been with Schomburgk in 1843 on the Corentyne but had not returned to the Essiquibo with his companions. He had gone south and married the daughter of a Parikutu chief. The son had learned to speak Taruma with his father but had forgotten much of it since his death. When the Mapidians returned he acted as interpreter and accompanied us to

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the next three villages. He told us more stories of the Diaus but would not agree to go with us to visit them because he said he would die of old age before he would get back from such a long journey.

The Chikenas of the next village had been driven up the Kichuau river by their enemies who had burned their village and killed most of their people because they were blamed for sending sickness to their neighbors. Here we found the oldest looking man that any of us had ever seen. His dry skin hung in folds from his stooping frame. His teeth had long since disappeared. Yet his hair was as thick and black as ever. He could do no work but was cared for by his friends. Every day he brought sweet potatoes which he and I ate with salt. He had never tasted salt before but liked it exceedingly well.

Here we made three more canoes and started down river thinking we should go to the Apiniwau, but after four days the Indians would go no farther because their enemies were below. As usual, we sank our canoes and started across country without a trail to another river which flowed into the Apiniwau higher up stream. This walking trip was the most disagreeable of all. A part of every day, it would rain and then the sun would come out, but the forest was so thick it could not reach us. Thus we would steam from day to day. Continuous rain would have been much more comfortable. When we reached the Ponoma river we built three more canoes and made new paddles. One tree made two canoes. At the mouth of the river we found evidence of Indians but could not tell which way they had been traveling. We decided to try up river first. At the first rapids we learned that they had gone up river and had not returned. They always unload on the rocks and carry the canoe up first, then return for their baggage. Some refuse is usually left behind and this gives the clue to the direction they were traveling. If they had been going down stream this evidence would have been found on the upper side of the rapids. The morning of the third day we reached a Kumayena village but no one was at home. After helping ourselves to sugar cane and potatoes we continued up stream. In the middle of the afternoon, the chief who was traveling in front made signals that he saw a canoe and we hid ourselves from view while he went on to the village. He told the people some white men were coming and returned for us. When we entered the village all the men were lined up with bows

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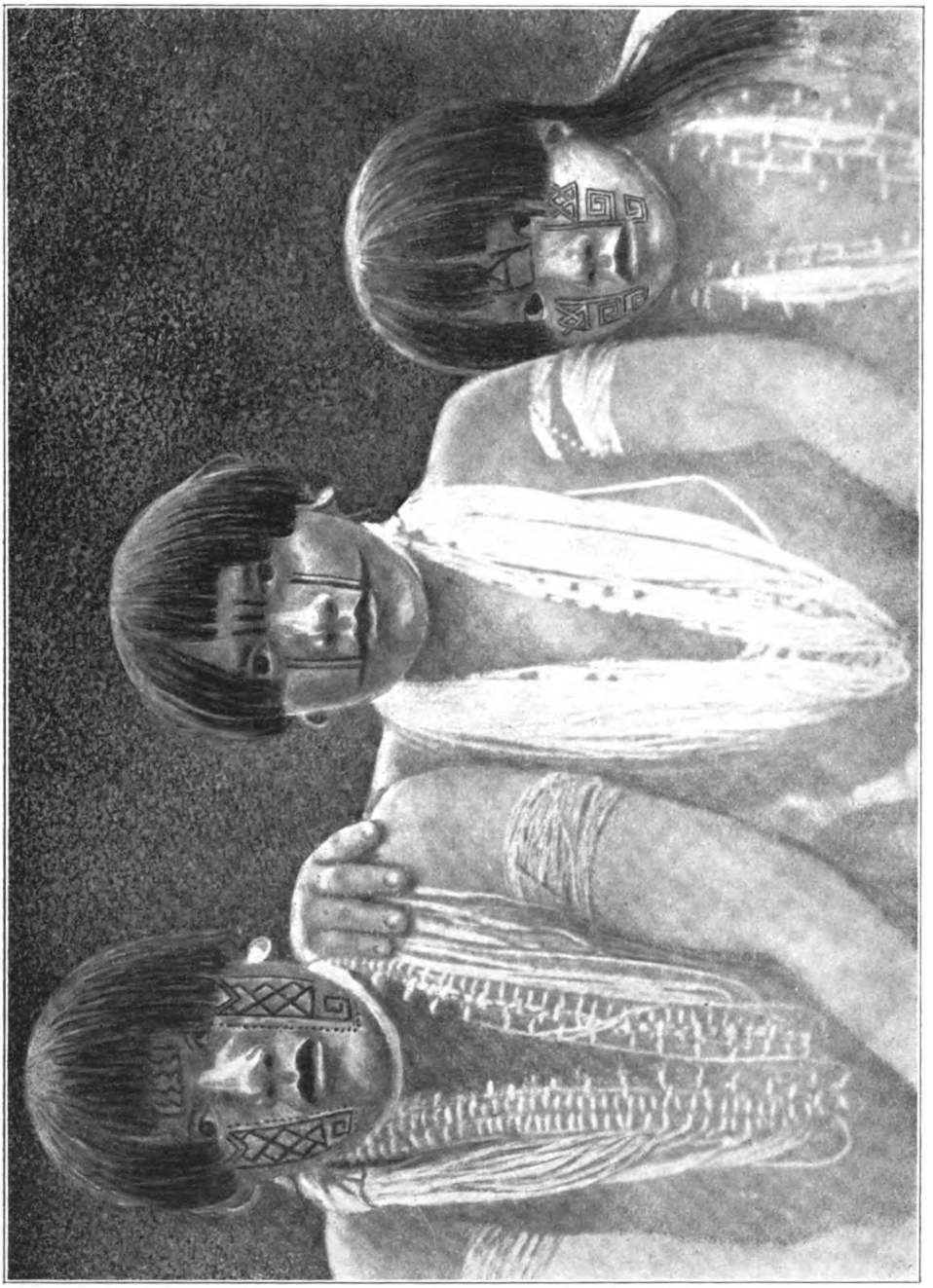

FIG. 191.—Parikutu girls.

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and arrows ready to shoot. The chief with a long knife motioned us to a seat on a log. Instead of coming to greet us as was the custom, he sent his daughters to speak to us while the men stood guard. As usual when entering a strange village, we had left our guns in the canoe. They soon realize that unarmed men do not mean to do them harm.

Our reception in all the other villages was practically the same. We stopped at the edge of the clearing that always surrounds a village and allowed the chief from the last village to go in alone. When all was ready he returned for us and led us in. We marched in single file and lined up in front of the men's door in the large communal house where we remained standing with our packs on our backs until the chief came out bringing with him two stools, one for himself and one for me. We then sat down and entered into conversation. He talked without interruption for ten minutes or more and then gave me an opportunity. Neither of us knew a word the other said yet we understood each other perfectly. He then moved along to speak to Ogilvie and the others. After all the men and boys had offered greeting the women came in line led by the chief's wives and each in turn said a word of welcome and passed on without waiting for a reply. The men engaged in general conversation until the women brought out great bowls of soup and meat and bread. Upon invitation by the chief we squatted on our heels around the bowls. Each took a great piece of hard coarse bread and soaked it in the soup until it was soft enough to eat. Then we moved back without rising to give others an opportunity. When we had eaten the moistened part we moved up again. If we cared for meat—bird, pig or monkey—we fished it out of the soup with our fingers. We were expected to carry away any bread left over, and we soon learned that it was considered bad manners not to do so. Our men often helped us over such difficulties by calling attention to them before it was too late. We did not like some of their drinks yet when the chief brought them we had to drink all he offered. If some one else brought it we might take a little and pass it along, but the vessel must return by the same route to the one who first took it. One who is careful at home soon learns the proper etiquette abroad. The meal being over we were taken to the men's house where our hammocks were arranged for the night. Ogilvie and I were everywhere treated with the courtesy and the consideration due to visiting chiefs.

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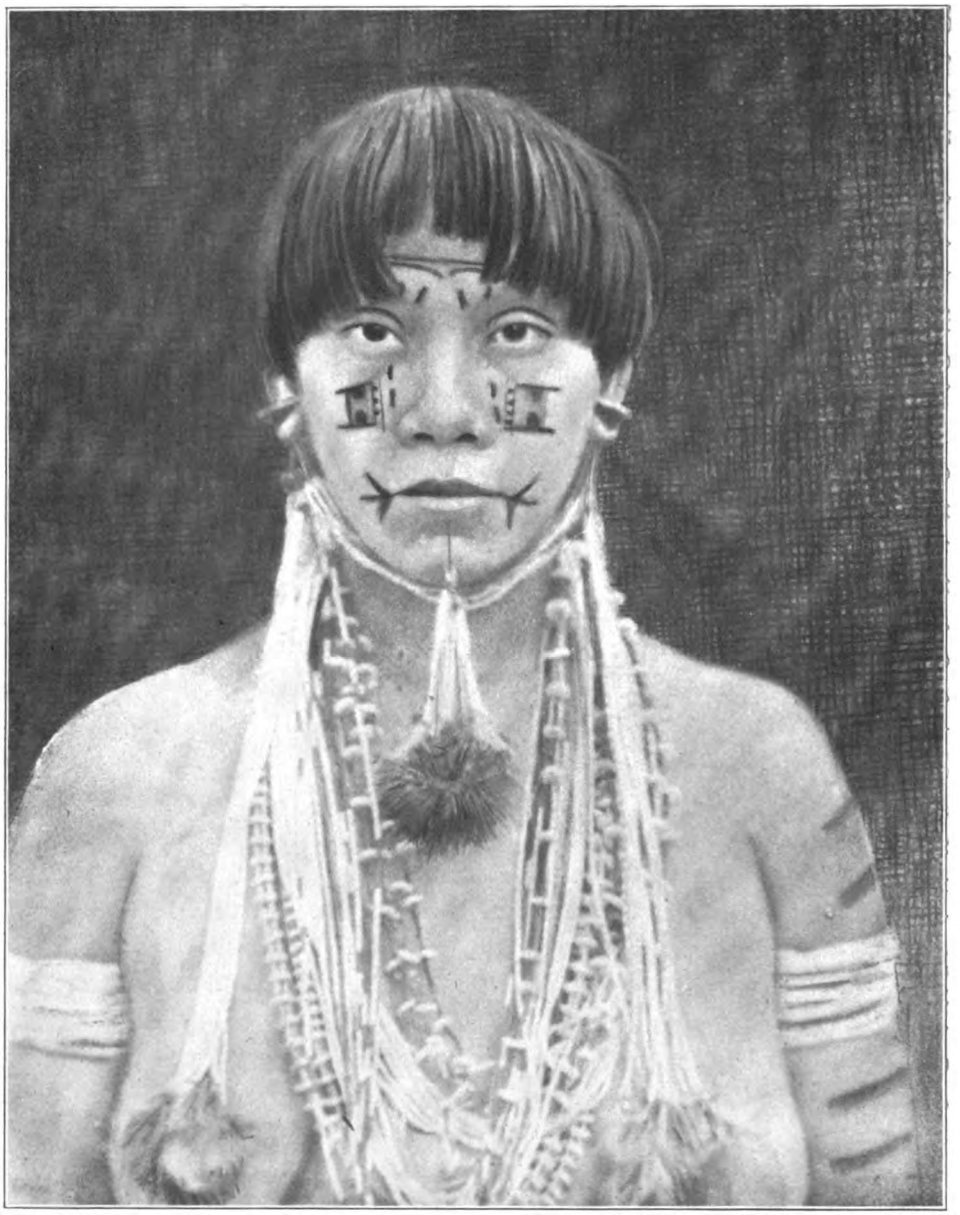

FIG. 192.—Diau girl. The lines at the corners of her Mouth indicate that she is one who chews the Cassava root for the manufacture of Intoxicating Drink.

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At this last village we met a member of the tribe we had heard so much about, a Diau. It was his canoe we had followed up river. He told us a dance was in progress at one of their villages and that a chief who lived far to the eastward was present. He said they did not make the knives and beads but this man from the east got these things from black men who made them. When his visit was over, he went with us eleven days to his own home and sent us with other men to the dance where we met the old trader. On the way we found a great deal of very good fruit, the abiu. It grows on tall trees. The Indians would climb up and cut off the branches so we could get it.

Their dances take place at night and they could not be induced to give them in daylight to be photographed. The occasion seems to be more of a drinking bout than a dance. Before the dance some interesting wrestling matches took place. Two young men each with a good strong whip would come out into the dancing place and at a given signal would whip each other about the bare legs making their whips crack like pistols until they could stand the punishment no longer, when they would drop their whips and rush at each other like mad. It was a regular catch-as-catch-can contest but instead of trying to throw each other down they tried to lift each other up. When one succeeded in getting both the other's feet clear of the ground he was the winner.

The dance lasted until all the food of the village was consumed. The old trader said he lived twenty-eight days to the northeast from this village. He knew a few words of negro English, a few of Portuguese and a few of French. He had never seen whites before but had traded with Negroes and had learned these words from them. He invited us to accompany him to his home. We started with him and the second day crossed the low divide between Brazil and the Guianas, here only seven hundred feet above the sea in Lat. 1° 55′ N. and Long. 56° 45′ W. He had told us of a great open space in the forest on this high ground and we thought he meant a lake but when we reached the place we discovered an outcrop of granite a quarter of a mile across. This is on top of the divide and will be one of the most prominent points in the line when the boundary between the countries is finally fixed. As we were the first whites to cross the divide at this point we named it "Farogle."

The following morning when we were ready to start the chief

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refused to go, saying that we had traveled so fast the day before that his soul had not been able to keep up and he would have to wait for it. At eleven o'clock his lazy soul came in and we got under way again but his tired soul traveled very slowly. The fifth day out his wife took fever and he decided to camp for a time until she recovered. We could not afford to remain because our stock of quinine was exhausted and we were all having fever. Our ammunition was also getting low. So we determined to take the shortest way out to civilization. We were camping on a small stream which was flowing north. When we asked the chief about it he said it went on in that direction and never came back. That it emptied into a river so large that the parrots and eagles could not fly across it and that its water was so thick that a canoe could not be paddled through it until the sun was very high. We asked him if he had ever seen this river and he said, "No, all the rivers I ever saw had another side to them but this one has no other side."

We built two large woodskins and started for the great river. We were not certain what river we were on but knew it must be a very rapid one because our elevation was nearly six hundred feet. From the location of rapids and of mouths of entering rivers we soon decided that we were following Schomburgk down the Corentyne. He had crossed the divide in 1843 by another trail and embarked on the river at an Indian village farther down stream. Today there are no Indians in the region.

While we were among the Indians they supplied us with food but now there were no more Indians and we were destined to depend entirely upon hunting and fishing for our living. This we could do easily enough as long as we cared to remain in one place but we experienced great difficulty in securing sufficient food while traveling. On rainy days we could get no game and in the rapids we could catch no fish. Our food question became a very serious one indeed. It was always all of one thing or the other or nothing. Either all pig, or monkey, or beegrubs, or parrots, or lizards, or nuts, or fruit, or the head of the palm. All perfectly good eating but the better of a little mixing.

On the whole journey to this river we carried a pan and washed the sands of all the streams for gold, but without finding a single color. This experience may be of value to others because it had been supposed that this region contained gold.

Where we embarked for our lonely journey the river was very

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narrow but fortunately there were no logs to cut or sand bars to drag across. We paddled down the short turns with a current running at the rate of four miles an hour for three days before we came to the first rapids, where we were to learn a very important lesson. Where there are rapids the river spreads out and breaks up into numerous branches thus forming islands of various sizes in midst of the rapids. This makes it impossible to see the foot of the falls or to determine which is the safest way to go. We started down among the islands, making our way from one to the other until we were far away and out of sight of either bank. We had to pass the night on an island. Then we learned that there were no animals or birds on the island and that we could catch no fish in the rapid water. So we began to realize how helpless we would be if our canoes should go to pieces on the rocks of an island. It would be impossible to get food or to reach the mainland. We decided henceforth to remain near one bank or the other. When we heard the noise of falls below, we stopped on the first islands at the top of the rapids and from the noise of the water decided which bank to follow. It was best to take the longer way around and thus avoid the greater falls. Often the rapids were very long and it was impossible to tell which way to go. The branch we followed would continue to break up until it might disappear among the rocks when we would cut a trail across an island or a point of the mainland for a long distance to another branch and try it again. Scores of times we carried our canoes across long level stretches or over high rocks and steep banks. The forests were so dense that we could cut only very narrow trails. On this account we turned our canoes upside down and carried them over our heads. Some one was always sick with fever and at such times he would remain in his hammock until the trail was ready. Then he would get up and take his place in the line because it required all of our combined strength to carry the water-soaked canoes. One might be too sick to paddle but he could not be too sick to pack. Not one of us will ever forget these trying times.

Between the rapids the banks of the upper river are high and lined with heavy forests of hard wood. There is nothing of the jungle one gets in the lowlands. While hunting, we could walk through the open forests without cutting a trail. The country is not as hilly as it is on the Brazilian side. Occasionally at a turn of the river we would get a glimpse of a low hill in the distance.

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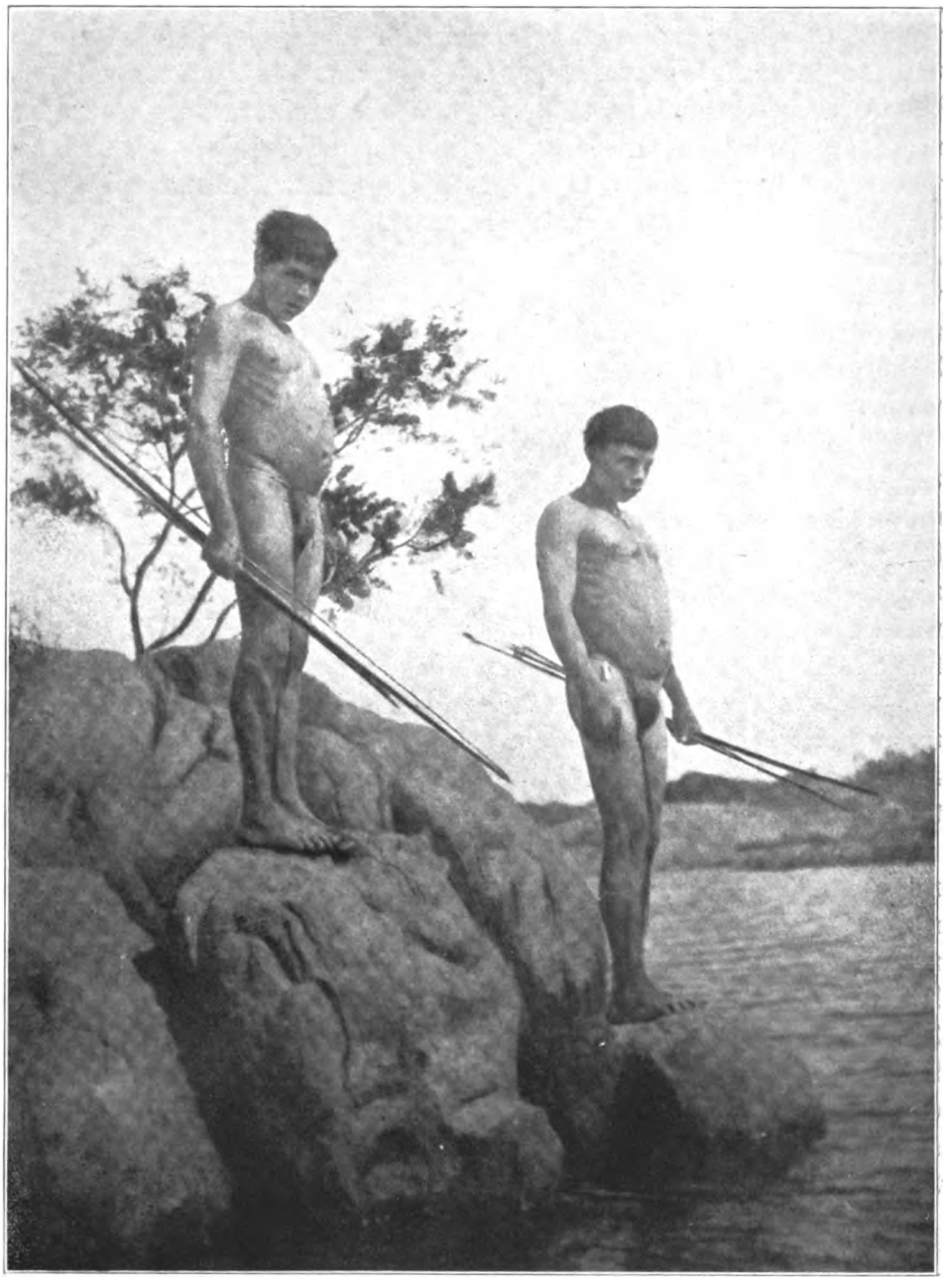

FIG. 193.—Two of our Indians fishing in the Corentyne River.

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There is nothing like a chain of mountains until the region of the mouth of the New river is reached. This upper country would be a delightful place to colonize if there were railway transportation.

For twenty-six days we worked our way down this difficult and dangerous river without seeing a single human being. As in the days of Schomburgk there are no Indians living along the banks of the river. When we reached the last, or the Wanotobo Falls, we attempted to go down on the British side but were unable to do so and spent four days working our way across the falls to the Dutch mainland. The last two days we were without food. In the evening Ogilvie shot an alligator and we went into camp on what later proved to be the bank of the river. We were so hungry that we ate too much and in the night all were sick. I was restless and sat up in my hammock. Ogilvie laughed and asked what was wrong. I said I was sitting up to keep my alligator down. He replied that he had just been down to the river to throw his up.

Next morning we discovered a trail and followed it to the bottom of the falls where we were overjoyed to find two boats with oars. Thus we knew there were no more serious rapids for such boats could not be handled in rapid water. They belonged to men who had gone deep into the forest to gather rubber. I attempted to find them and get permission to use one of the boats but after following their trail for two days, I returned. The men had not been able to find suitable trees for woodskins. There was nothing else to do. We took the boat hoping to return it before the owners might need it. Next to murder, taking a canoe is the most serious crime one can commit and is punished accordingly by the Dutch authorities.

About noon we met some negroes going up to the foot of the falls to work rubber. They told us that a government launch was expected within a few days at the Dutch station a short distance down river. We hired them to take us down to the station and to return the boat. We did not like the idea of falling into the hands of the authorities with the boat still in our possession. By traveling two days and the intervening night we reached the station in time to hear the whistle of the approaching launch.

Here we had time to take stock of our possessions and condition. Our reserve food supply consisted of the fore leg and a part of the tail of our old alligator. This the good negro host immediately threw into the river, saying that no man would be allowed to eat such food as long as he had rice and beans—a sentiment that

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one cannot fully appreciate until he has lived on alligator steak alone for several days. Physically we were all in a rather bad condition. For two months we had had chills and fever continually. This together with poor food had reduced us to skeletons. I was forty-eight pounds lighter than when I left home. One of the Indians had dysentery and all were suffering from sore feet. Ogilvie had "Bush jaws" which kept him in the doctor's care for many months. While I had "Beri-Beri," according to the diagnosis of the natives. They pressed their fingers into my swollen feet and legs making deep dimples which would remain for a long time. They said I would get to Georgetown all right but no one ever recovered. I was not alarmed because I knew I was suffering from cold feet only. I had not been accustomed to work in the water barefooted. Eight months afterward, I was able to lace my shoes again.

When we arrived at Nickerie, at the mouth of the river, we were taken in charge by two policemen carrying rifles who marched us through the city in a downpour of rain, to the police station where we were detained for three hours while the court examined our papers and the curious populace observed our ragged clothes and bare feet. The amount of our letter of credit impressed the judge favorably and we were allowed to cross over to the British side of the river. We arrived in Georgetown just eight months after leaving postal touch with the outside world at Rio Branco. For five months we had not seen another white man. Here we were very kindly received and entertained by the Governor of the Colony and other friends of Ogilvie and Melville. After ten days rest and much needed medical treatment, Ogilvie and our four faithful Indians set out for the long month of upriver canoe travel to reach their homes in the savannah country. Whatever success we attained was due to the perfectly harmonious labors of the entire party.

From Georgetown, I went by way of Trinidad to Barbados, where I had the great pleasure of spending a day with Colonel Roosevelt and learning from him the story of his explorations in Brazil. After remaining in Barbados twenty-five days and gaining twenty-three pounds of good solid civilized flesh, I returned to Para for another journey.

W. C. F.

[*To be continued.*]

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TWO EARLY CHINESE BUDDHIST SCULPTURES

FEW examples of early Chinese sculpture are more widely known than are the two Buddhist pedestals recently acquired by the University Museum. Among European authorities who have thought them worthy of particular notice have been Bushell[1] and Chavannes,[2] while in China itself rubbings of the designs covering their sides are in the hands of every collector.

The practice which grew up in China during the early centuries of our era of carving scenes of various sorts upon slabs of stone was undoubtedly inspired by the mural painting of the day. It is this fact that confers upon these two pedestals one of their chief claims to importance. We can infer from literary allusions that the frescoes of the time were of a high order of merit; but unfortunately they have perished with the temples and palaces whose walls they adorned, and but for the few reliefs on stone which have come down to us we should be quite unable to form any adequate conception of a most important and interesting phase in the artistic development of the Far East.

The earlier of the two pedestals under discussion was found in the province of Chihli, the same in which Peking stands, and early in the Kuang Hsu period (1875–1908) was included in the famous Ching collection. In many ways it is one of the most remarkable examples of early Chinese sculpture which have survived to our day. Its square base, 24¼ inches by 23¾ inches, with a height of 10¾ inches, is surmounted by an inverted ten petaled lotus thalamus 24 inches in diameter, the total height being 20 inches. In the top is a deep socket which formerly supported a statue of Māitrēya, the "Buddha who is to come." Of the four faces of the square basal portion one bears a dated inscription, while the other three are decorated with very low and flat reliefs recalling somewhat in their technique the well-known grave sculptures of the Latter Han dynasty (A. D. 25–221).

In studying the different faces it will perhaps be best to begin with the inscription (Fig. 194), inasmuch as the date which it bears

[1] Bushell, Chinese Art, Vol. I., p. 36 and Fig. 22.

[2] Chavannes, Ars Asiatica, Pt. II., pp. 30–33 and plates XLVI–XLIX.

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FIG. 194.—Dated inscription on reverse of sixth century Buddhist pedestal (No. 2).

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will enable us to fix the place of the monument in the history of Chinese art. We read that this monument was dedicated by a certain Tsao Wênhsi, governor of Wei Hsien (the modern T'ai-ming Fu), in the sixth year of the period Cheng Kuan (A. D. 524) of the Great Wei dynasty. China at that time, as has so often been the case, was divided into a northern empire ruled by Tartar invaders, and a southern portion under the sway of native Chinese emperors, the dividing line being roughly the watershed between the Yangtse and the Yellow Rivers. At the time when this pedestal was dedicated the capital of the northern empire, known as Wei, was at Loh-yang, in northern Ho-nan, while at Nan-king, the southern capital, ruled the great Liang Wu-ti, founder of the short lived but brilliant dynasty of Liang (A. D. 502–557). Both powers were strongly in sympathy with Buddhism, and it was at this very time that the center of gravity of that faith shifted from India to China with the removal, about 520, of the patriarch Bōdhidharma to the latter country, where he settled first at Nan-king, and later at the rival capital, Loh-yang. It will thus be seen that this pedestal belongs to a period of the utmost importance in the history of eastern Asia and it is a matter for congratulation that we are able to date it so precisely.

Passing now to the opposite face (Fig. 195), we find it occupied by an allegorical relief centered about a female figure, visible from the waist upward as it emerges from a lotus thalamus; above its head it holds a wide salver upon which stands an incense urn, upon the upper part of which appear conventionalized representations of mountains. In this half concealed female figure it seems probable that we have a most interesting example of the way in which the art of classic Greece has influenced that of the extreme east of Asia. The motive itself is a recognized and common one in Chinese Buddhist iconography. It appears twice, for example, on a stela now on exhibition in the University Museum (No. 13 in the Oriental Section), which was carved in 546, just twenty-two years later than the pedestal under discussion. The ancient Greco-Buddhist art of Gandhara, the region around the modern Peshawur, so well known to readers of Kipling, also has examples of this motive, and from them we learn that it is Sthāvarā, the Goddess of Earth, who is intended. The reference is to the Buddha's struggle with the tempter, Māra, when the earth goddess, summoned to witness the triumph of the Master over the forces of evil, appeared out of the ground in

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FIG. 195.—Obverse of sixth century Buddhist pedestal (No. 2).

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the way depicted upon the pedestal. A step still further back brings us to the frieze surrounding the great altar of Zeus, at Pergamum, now in Berlin. Here, in the struggle between the Gods and the Giants, sons of Gaia, the latter is shown emerging from the earth she personifies, to intercede with Athena for the lives of her offspring. Just what the significance of the motive as introduced upon the pedestal may be, it is difficult to say; but that it had some connection, through the medium of Buddhism, with the classical art of the Mediterranean world there seems little doubt.

Flanking this central concept of the female figure and incense urn are a pair of Fêng-huang, or "phoenix birds," as they are usually called by foreigners, and a lion and lioness. The latter, though far from true to life, are drawn with more accuracy than is always the case on Chinese monuments. The lion seems never to have existed in China, at least within the human period, and its introduction into Chinese art is due to Buddhist influence. Forced thus to depend for their conception of the animal upon second hand knowledge, it is no wonder that the Chinese artists went sadly astray in their efforts at its portrayal. It is amusing to read of the naïve astonishment of the envoy, Sung Yün, sent to India in 518 (just six years before the date of the pedestal) when he saw in that country living lions, and recorded that they did not look at all like the representations of them which he had seen in China. That a purely mythological concept such as the lion was to the Chinese of that day should become conventionalized and to a certain extent distorted was of course inevitable. Still it is rather surprising to find here the lioness equipped with a well developed mane which only differs from that of her mate in lying smooth and unruffled instead of bristling fiercely. The presence here of a lion and lioness instead of a pair of lions is of course an adumbration of the theory of the two principles, Yang and Yin (male and female, or positive and negative), upon which so much of Chinese philosophy is based.

The Fêng, or "phoenix," which by the way has no traceable connection with the mythical Arabian fowl which used to rejuvenate itself upon the altar of Heliopolis, belongs to the group of the Four Mythical Creatures, along with the Lung (dragon), the Kwei (fabulous tortoise), and the K'i-lin (unicorn). In early times the Fêng appears to have been conceived of as an eagle-like bird of colossal proportions, something like the roc of Sindbad the Sailor; but later it was described as having "the head of a pheasant, the

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beak of a swallow, the neck of a tortoise, and the outward semblance of a dragon." In practice it is usually shown with the combined attributes of the peacock and the pheasant, embellished with gorgeous colors and with flame-like appendages where neck and body join. In his delightful book, "A Naturalist in Western China," Mr. E. H. Wilson, after describing the Reeves Pheasant (Syrmaticus reevesi), says, "L'Abbé David suggests that this bird may be the original of the mythical Chinese Fung Hwang (Phoenix bird). To my mind this is extremely probable, but Williams in 'The Middle Kingdom' considers the Argus Pheasant, found in Tonking and southern Yunnan, the origin of this fabulous bird." Whatever the origin of the concept may be, the Fêng has always formed a favorite motive in art, being looked upon as a bird of good omen, whose appearance heralds the advent of a beneficent ruler. According to the Chinese records it has never been seen on earth since the time of Confucius.

In the upper left hand corner of this face, surrounded by lotus petals, we see represented the sacred Pātra, the begging bowl of the Buddha, which has been aptly described as the Holy Grail of Buddhism. All blank spaces in the background of the design have been filled in with conventional floral designs, in which the lotus bud and blossom predominate. The effect thus produced has been compared to that of a piece of brocaded silk.

Turning now to the right hand face (Fig. 196), that to the north as the pedestal now stands, we find depicted a religious procession, in which the lead is taken by the donor of the monument. Wearing high headdress and flowing robes of state, and carrying in his outstretched right hand an incense urn similar to that shown on the front of the pedestal, he walks slowly forward, accompanied on either side by two youths, pages, or possibly sons, who seem to support his outstretched arms. Behind follow attendants bearing symbols of power and rank, such as a state umbrella, a banner screen, and bâtons. The rear of the procession is brought up by a groom who leads a spirited and magnificently caparisoned horse. The five conventionalized four petaled peonies shown on the animal's neck indicate the rank of its master. The Fêng ("phoenix") occurs again upon this face of the pedestal, and blank spaces are filled with floral ornament.

The opposite or left hand face (that to the south) displays a scene (Fig. 197), which is almost the counterpart of the one just

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FIG. 196.—Right hand face of pedestal (No. 2).

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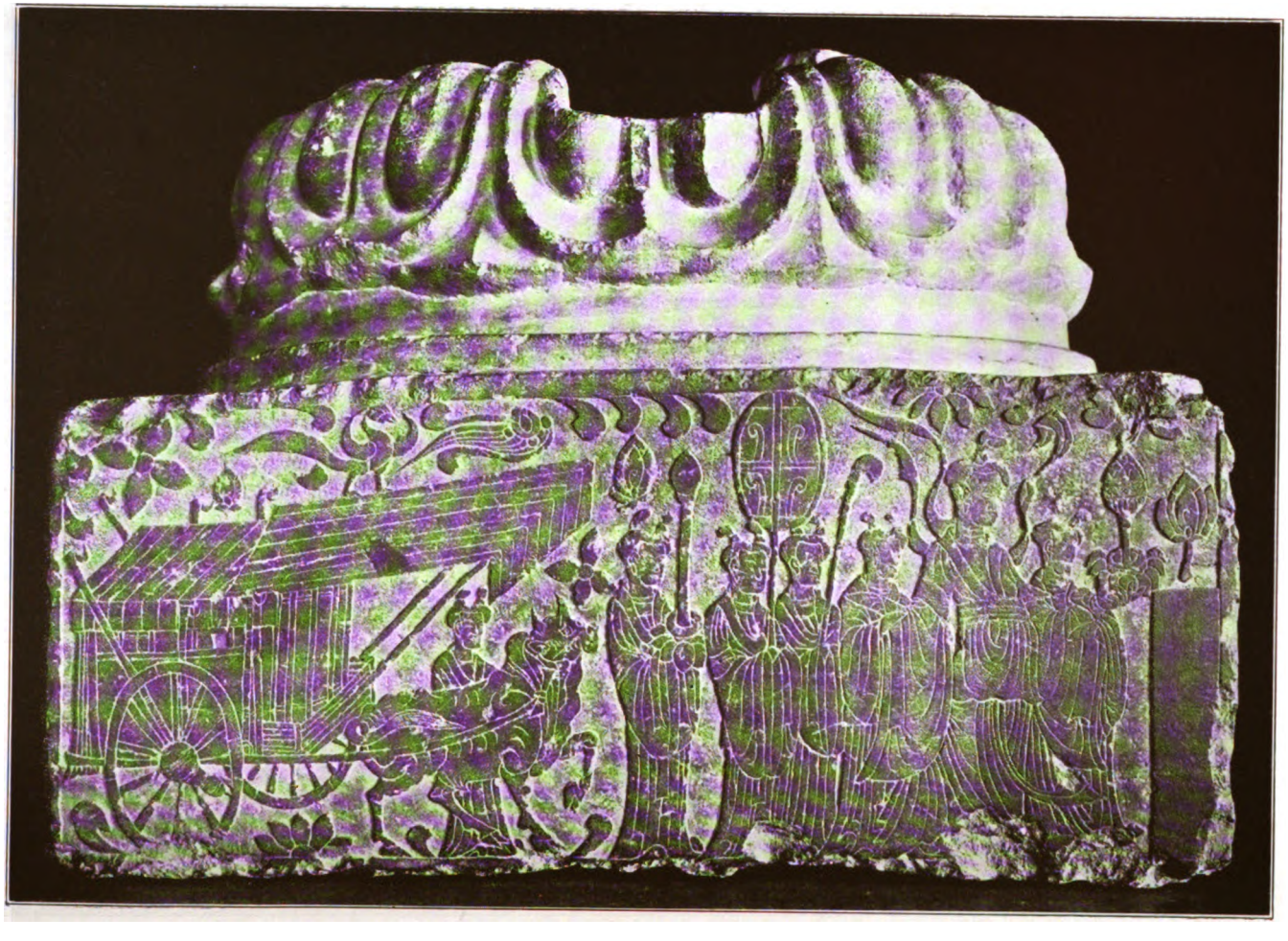

FIG. 197.—Left hand face of pedestal (No. 2).

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described. Here, however, it is Madame Tsao, the wife of the donor, who heads the procession, bearing an incense burner exactly like that carried by her husband. She also is accompanied by attendants who support her outstretched arms or carry emblems of honor; the state umbrella borne over her husband, however, does not appear here, for that pertains not to the individual or the family, but to the office. Appropriately there is provided as a means of conveyance for the lady, instead of a saddle-horse, a two wheeled cart with canopy and curtains, drawn by an ox beside which walks a groom. Apart from its possession of a flat instead of an arched top, this vehicle is precisely like the modern Peking cart, although the use of an ox instead of a horse or a mule between the shafts recalls rather the Japanese usage in the drawing of state vehicles. The phoenix and floral decorations occur here also.

It would be difficult to overestimate the importance of this monument. Of unquestioned authenticity, exactly datèd, displaying workmanship of a high order, and in almost perfect preservation, it enables us to form of the pictorial art of that distant time a truer conception than could be derived from any amount of written description or traditional evidence. It is not without reason that reproductions of the scenes depicted upon this pedestal are to be found in almost every book which has to do with the subject of Far Eastern art.

No less interesting is another pedestal. Probably of slightly later date than the one just described, it is also somewhat larger, measuring 33¾ inches by 21¾ inches, with a beveled top, and standing 20 inches high. A deep socket in its upper surface tells of the former existence of a stela, now lost. Upon its four faces are depicted not scenes connected with the dedication of the monument or having to do with the daily life of the period, but events in the career of the historical Buddha, Sākyamuni. The technique also differs somewhat, for the designs, instead of being rendered in low flat relief, are simply incised in the smooth surface of the stone, without any attempt to cut away the background.

The events depicted here are arranged in chronological order. The opening one (Fig. 198) is found on one of the shorter sides of the stone, that facing to the north as the pedestal is at present mounted. The accompanying inscription reads, "Kung Hai, donor of the image representing the crown prince at the moment when he became a Buddha, and when the white horse licked his feet." The repre-

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sentation of the two events as occurring simultaneously involves a slight anachronism, inasmuch as seven years elapsed between the flight of Sākyamuni from his father's house upon his white horse, Kanthaka, and his achievement of Buddhahood under the sacred Bōdhi tree, the "tree of illumination" (Ficus religiosa). The ascription of the title of "crown prince" to the Buddha is a result of the myth making tendency which exercised itself freely in the

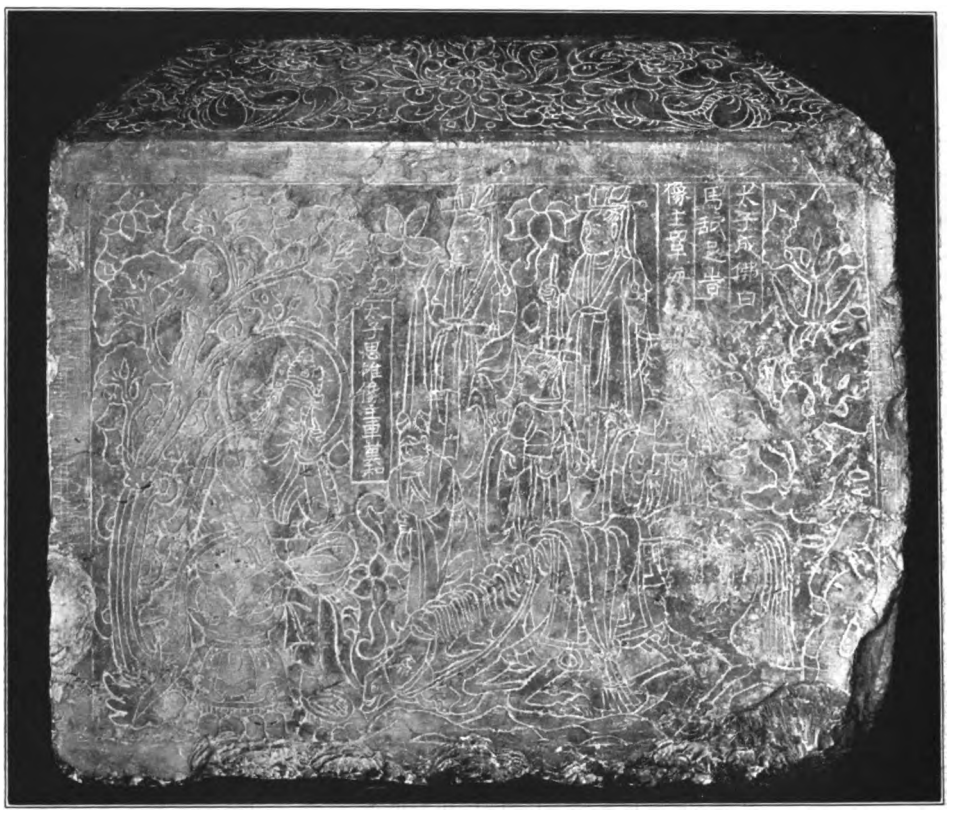

FIG. 198.—Enlightenment of the Buddha (Pedestal No. 25).

centuries succeeding the death of the great teacher. According to these myths, the father of the Buddha, Suddhōdana, was of the royal race of the Sākyas, over whom Sākyamuni himself would one day have ruled, had he not renounced his lofty position at the call of duty. Recent investigation, however, has made it pretty certain that the Sākyas had not as yet established the institution of the kingship as it was known in later times, but that they retained much of the freer, more democratic life of the Vedic period. They seem

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to have formed an aristocratic republic, whose affairs were administered by officers called rajahs, corresponding fairly well to the consuls of Rome or the archons of Athens. These Indian rajahs gradually succeeded, it is true, in extending their powers, until in later times they have come to be looked upon in the West as almost the type of the barbarically opulent Oriental monarch, wielding absolute power over the lives and fortunes of his subjects. This process had apparently commenced before the time of the Buddha (the sixth and fifth centuries B. C.), but it had not yet affected the Sākyas; and moreover the father of the Master was apparently not a rajah even in the sense in which the word was then understood.

The five personages standing before the seated Buddha have no distinguishing attributes, although it may be that the one standing by the kneeling horse's head, wearing a distressed expression upon his face, is the faithful groom, Chandaka, who assisted his young master in his flight, and is now bidding him farewell. At all events, this scene of the parting between Sākyamuni and his horse and groom is a favorite one in Buddhist iconography, and occurs wherever Buddhistic art remains are to be found today, from Afghanistan and the valley of the Indus to the islands of Japan. The white horse still plays an important part in Buddhist legend and story, and few who have visited Japan will fail to recall the sacred white horses kept in certain temple enclosures there. The Buddhists of course explain this custom on the ground that it was a white horse that carried Sākyamuni on his flight from his father's house, and another that carried the first copies of the Buddhist scriptures from India to China (A. D. 67) and had the first temple in the latter country, the famous Pai Ma Ssu (lit. "White Horse Hall"), named for him in consequence. It seems more likely, however, that we have embodied here a belief that goes very far back of the beginnings of Buddhism, for a sacred character seems to have attached to white horses through the greater part of Asia and Europe from prehistoric times. The famous "Vale of the White Horse," in Berkshire, and the white horses which drew the car of a triumphing Roman general (himself "made up" as Capitoline Jove) are instances in point, which might be multiplied almost indefinitely. That the ethical teachings of the Buddha were in large part original with him, at least in their application, may be conceded; but in the great body of legend and myth and tradition which gradually attached itself to the primitive doctrine, Buddhism

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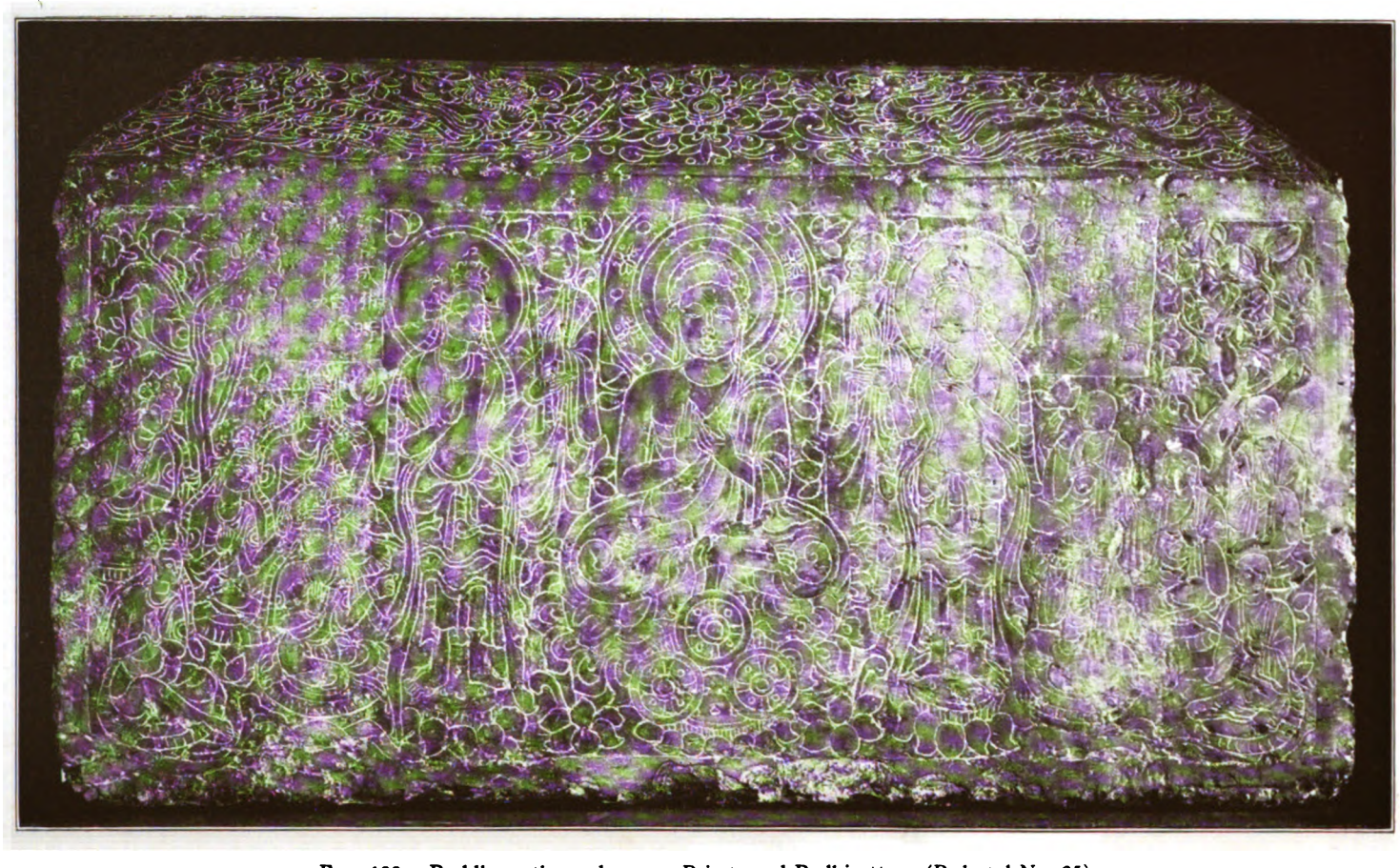

FIG. 199.—Buddha enthroned among Priests and Bodhisattvas (Pedestal No. 25).

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finds itself linked up in a myriad ways with the folk tales and common beliefs that had spread themselves over a great part of the old Eurasiatic world ages before the dawn of history.

Sākyamuni himself, as he is depicted upon this face of the pedestal, is shown seated upon the lotus throne beneath the branches of the sacred Bōdhi (Bo) tree, in the attitude technically called that of "meditation." The word has reference of course to the process by which he eventually achieved his self illumination and attained to the rank of a Buddha. Close beside is a cartouche with the words, "Kiu Han-ho, donor of the image showing the crown prince in meditation." It will be noticed that the head of the Teacher is encircled with an aureole. This is strictly speaking an inaccuracy on the part of the sculptor, inasmuch as Sākyamuni during his period of meditation had not yet attained illumination, of which the aureole is a symbol. We must not look too closely, however, for an exact observance of the unities of time and place. Not only was the artist here trying to express a great deal in a limited space; but we must further bear in mind that Chinese pictorial art has always left much to the intelligence, or at least the imagination, of the observer, and has always endeavored to suggest rather than to depict exactly. In this particular case, for example, we see summarized all the leading events in the earthly career of the historic Buddha. His great renunciation, involving the relinquishing of father and wife and new born son, of wealth and power and social position, are suggested by the presence of the kneeling horse, which has just borne him on his flight from his ancestral home and is bidding him farewell. The sacred Bōdhi tree beneath which he sits, wrapt in profound meditation, recalls the long years of struggle and effort involved in his search for the truth. Lastly, the presence of the aureole brings to mind the successful outcome of that long struggle and the attainment of that bliss which, so taught the Master, lay within the reach of every living creature who willed to lead his life aright.

The next face (Fig. 199) of the pedestal, that to the east, shows the Buddha enthroned between two priests and two Bōdhisattvas, while below are three wheels. The Master is now evidently fairly launched upon his career as a religious teacher. Not only is this indicated by the presence of the three wheels, symbolizing the three principal occasions upon which he "turned the Wheel of the Law," or in other words gave expression to his doctrines; but he is here shown upon one of these occasions, the conversion of Ājnāta Kaun-

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dinya, one of the most famous of his disciples. Here again the unities are disregarded, if indeed it ever occurred to the Chinese sculptor that there were such things. To the left of the Buddha are five high caste men in rich vestments, Kaundinya presumably among them, all listening to the new doctrine, while on the right, in the same scene, appear the same five, but now converted and with shaven heads and priestly garments. The trees at right and left represent the

FIG. 200.—Buddha and the four Dēvarājahs (Pedestal No. 25).

famous Deer Forest of Rsipatana. In the cartouche at the right are the words, "Ch'ao Hsi, donor of the image representing the Buddha Sākyamuni at the moment when he wrought the salvation of Ājnāta and when he put in motion all the Wheels (of the Law)." This evidently has a direct reference to the scene depicted here. Of the cartouche on the left, however, the same can not be said, for it merely mentions an individual who had given "an image of Māitrēya at the moment of becoming a Buddha." No such event

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is shown anywhere upon this pedestal, and it seems reasonable to conjecture that this inscription, as well as certain others on the remaining faces, must refer to things depicted upon the stela which this block of stone once supported.

The beveled upper portion of this face shows two dragons flanking the sacred jewel Mani, one of the Sapta Ratna or Seven Precious Things, regarded in earlier times as a pearl, later as a diamond, and symbolic, in its manifold perfections, of the Buddha and his doctrines.

Turning now to the southern face (Fig. 200) we find portrayed a well-known scene in the (legendary) life of the Buddha, the presentation of the stone begging bowls by the four Dēvarājahs or heavenly kings. The story is that the Buddha could only accept such offerings as were placed in his begging bowl, the pātra, already noticed in connection with the preceding pedestal. Upon one occasion, when he found himself without a bowl, the four Dēvarājahs flew to his relief from the four quarters, each bearing as a gift a begging bowl of pure gold, which, however, the Master refused as unbecoming one so humble as himself. The four kings then offered successively bowls of less and less precious materials, until at last each of them placed before the Master a bowl of stone. The Buddha, unwilling to hurt the feelings of any of his faithful followers by refusing their gifts, accepted all four of the bowls. They proved, however, no encumbrance to him, for they straightway became one. In the carving the four bowls are shown separately, in the hands of their donors, who humbly extend them toward their Master, while he himself is represented as holding in his hand the miraculous fourfold bowl, whose multiple origin is indicated only by the four lines drawn about its rim. It is a very constant and apparently well founded tradition which represents Sākyamuni as always scrupulously careful of the feelings of those with whom he came in contact. This trait and his humanity toward animals are among the most attractive elements in the character of this wonderful man, as they are among the best authenticated.

The cartouches upon this face have no bearing whatever upon the scene with which they are associated, merely recording the names of donors of various images, no doubt among those shown upon the missing stela which once surmounted the pedestal.

It is far less easy to identify the event represented upon the fourth face (Fig. 201) of this monument, that toward the west, for

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FIG. 201.—The Great Miracle of Çrāvastī (Pedestal No. 25).

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there is nothing quite so tangible to go on as is the case with the preceding scenes. It seems probable, however, that M. Foucher, the famous authority on Buddhist iconography, is correct in considering it a representation of that episode in the career of the Buddha known as "The Great Miracle of Çrāvastī." The story is to the effect that while holding a controversy with six heresiarchs before King Prasēnajit the Master confounded his adversaries by multiplying himself an infinite number of times in all directions. In pictorial representations of this proceeding (which it appears was most effective in silencing opposition) it is customary to show the likeness of the Buddha thrice repeated, and that is what has been done in this instance. The real Buddha is shown in the center, seated cross-legged upon a lotus throne in the robe of a monk, with an aureole about his head, and above him a canopy which supports the sacred jewel, Mani. Eight Bōdhisattvas are seated four by four to right and left in the same cross-legged attitude; two of them are partly concealed by the aureole, from behind which they seem to be peering. At right and left of the Bōdhisattvas again occur the two reduplications of the likeness of the Master, who here however is shown not cross-legged, but seated in European fashion. On either side of him stands an attendant Bōdhisattva, while behind him waits a monk, recognizable by his shaven poll. The cartouches have nothing to do with the scene here depicted, but as is the case with so many others they appear to refer to the lost stela.

Upon the beveled upper portion of this face are shown a Fêng (phoenix) and a K'i-lin or unicorn, flanking an ogre's head mask. The K'i-lin, it may be remembered, is one of the Four Mythical Animals, and like the Fêng is considered a creature of good omen. The male of the species is named the k'i, while lin is the name of the female, the generic word for the creature being compounded of the two. It is said to have "the body of a deer, the tail of an ox, and a single horn." This concept of a single horned deer-like animal seems to have arisen in India, although the existence of the rhinoceros in central China until far into the historical period may have played a part, just as that pachyderm undoubtedly had something to do with the shaping of the European belief in the unicorn, and just as, according to some, the alligator of the Yangtse had something to do with the origin of the notion of a dragon among the Chinese.

While it is true that none of the inscriptions upon this most

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interesting example of early Chinese sculpture gives any clew to its date, the style of the workmanship and particularly that of the written character enable us to place it confidently a century or two later than the pedestal described in the earlier portion of this paper, that is to say some time in the T'ang dynasty (618–907).

It would be difficult to find better examples than these two pedestals of the way in which the artistic impulse had permeated the whole Chinese nation at the period of their execution, an epoch which so far as Europe is concerned is commonly spoken of as the Dark Ages. Nothing is less likely than that they were the work of men of any particular standing as artists. They were the work of the stonemason rather than of the sculptor. Yet the composition is dignified, restrained, and perfectly balanced, and the scenes portrayed are chosen with the utmost appropriateness and good taste. It is a commonplace that no one has ever equaled the Chinese painter in the mastery of the line; but it is astonishing to find it handled with such vigor and confidence and feeling in so refractory a material as this very hard stone. From whatever point of view we consider these two relics of a great period in human history it is impossible to withhold our admiration, not merely for the technical skill of the execution, but also for the simplicity and sincerity and depth of the inspiration. Their importance from the standpoint of the archæologist and the historian of art it would also be difficult to overestimate.

C. W. B.

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AN ANCIENT BABYLONIAN MAP

AMONG the collections in the Babylonian Section of the Museum is a clay tablet upon which an ancient engineer drew a map showing canals, villages and fields. It shows part of an agricultural area near the city of Nippur and was made in the Cassite Period about 1,500 years B. C. The rural life of ancient times in this historic land has here a visual commentary, and we see how the peasants lived together in villages, having village commons for their flocks and a municipal marsh to furnish a most necessary article of domestic life, the cane reed. Assuming that the orientation of the map is the ordinary one employed in other Babylonian maps, the reader will be able to trace the several features of the country and their details.

The skeleton of the plan is made by the canal which enters from the northeast corner of the district, flows south-southwest and turns in a rough parabolic curve to retreat at the same angle toward the north-northwest. At the center of the district marked by the end of the parabola enter from the southeast and southwest corners two canals which unite with the main canal. In the extreme northeast corner is a town Bit-Kar ^{ilu}Nusku, indicated by a small circle and an inscription. The northeast wing of the canal on which this town lay is called Nar-bilti or "Canal of the burden," a name which refers to the agricultural products brought to and fro upon the canal. This name, and others about to be discussed, show that these canals were arteries of trade as well as streams to supply the fields with water. The town Kar-Nusku is mentioned in temple accounts of the city of Nippur as supplying sheep and grain for the support of the temple priests. In the northwest corner on the left branch of the canal is the town ^{ilu}Hamri, also mentioned in the accounts of the temples at Nippur. Therefore the northwest branch of the canal bears the name Nar-Hamri. (According to references in Assyrian inscriptions hamru designates a place where the cult of the fire god was established.) The canal entering from the southwest is called the "Irrigation of Bêlšunu" (nam-gar Bêlšunu), because it supplied the estate of Bêlšunu with water. This estate lay outside the limits of the map. Unfortunately the southeast section is broken, but

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the inscription on the canal which enters from this region begins nam-gar, or irrigation, which shows that it also supplied water to the estate of some land owner whose property lay in this region.

FIG. 202.—An Ancient Babylonian Map on a Clay Tablet, made about 1,500 years Before Christ.

Geographically and probably essentially the point of chief interest in the mind of the map drawer is the field which occupies the cone-like space at the end of the parabola, which is also the center of the map. Their field bears the inscription "Field between

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the canals, the contents (?) are eight gul (a measure of area in the Cassite and Assyrian inscriptions) field of the palace." Therefore the map maker really wished to give an accurate drawing of the field belonging to the royal estates and we may assume that he did his work at the king's injunction and that the tablet has come to us from the royal archives of Nippur. The Cassite kings nominally held court at Babylon as the capital of Babylonia, but their favorite residence appears to have been at Nippur. North of this field passes between the Nâr-bilti and the Nar-Hamri the waterway a-tap [ ]—kur-ru-ti (?). Still further to the north is a second cross waterway a-tap ša-te-e or "stream that gives to drink." The field between these waterways bears no inscription. The land lying north of this cross canal is called the "Marsh land of the city Hamru." In the economic life of ancient Babylonia the marshes formed an essential factor and were indispensable in each district, since they supplied reeds. The reed was used for making baskets, household furniture, firewood, hedges and even for the writing stylus. It must be remembered that forests in our sense of the term were unknown in southern Babylonia, hence the reed which grew to enormous size largely supplanted wood in the economic life of the Sumerians and Babylonians. Separated by a line from this public marsh land, owned by the village Hamru, is the large "Field of Marduk" in which lay to the north opposite Hamru and off the north edge of the map the village Bit-^{ilu}Marduk, or "House of Marduk." Perhaps a temple of this god stood there; in any case this large field in the northern part of the district belonged to the temple estate which supported the cult of Marduk, either a local cult or the cult of the great temple far away in Babylon.

Across the canal to the east of the field of the palace is the "Field Ku-ri-li of the barû priest," and on the other side to the west is a much larger field called "Field of the table of the barû priest." The barû priest was the seer of the Babylonians, whom they invariably consulted about all future events. This learned priesthood was attached to all the great temples and, as we see here, owned valuable landed estates. The idea of a state supported order of seers seems preposterous to us, for divination is considered illegal, but Babylonian religion was supercharged with magic and mystery. Kings and laymen undertook no important tasks, launched no important ventures without consulting these sages of the liver omens, of oil omens and of every conceivable

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kind of divination. They formed an important part of the priesthood and hence we find them on our map in possession of estates more valuable than those of the king himself. To the north of the Field of Kurili passes the cross canal Nar-battum, or "Canal

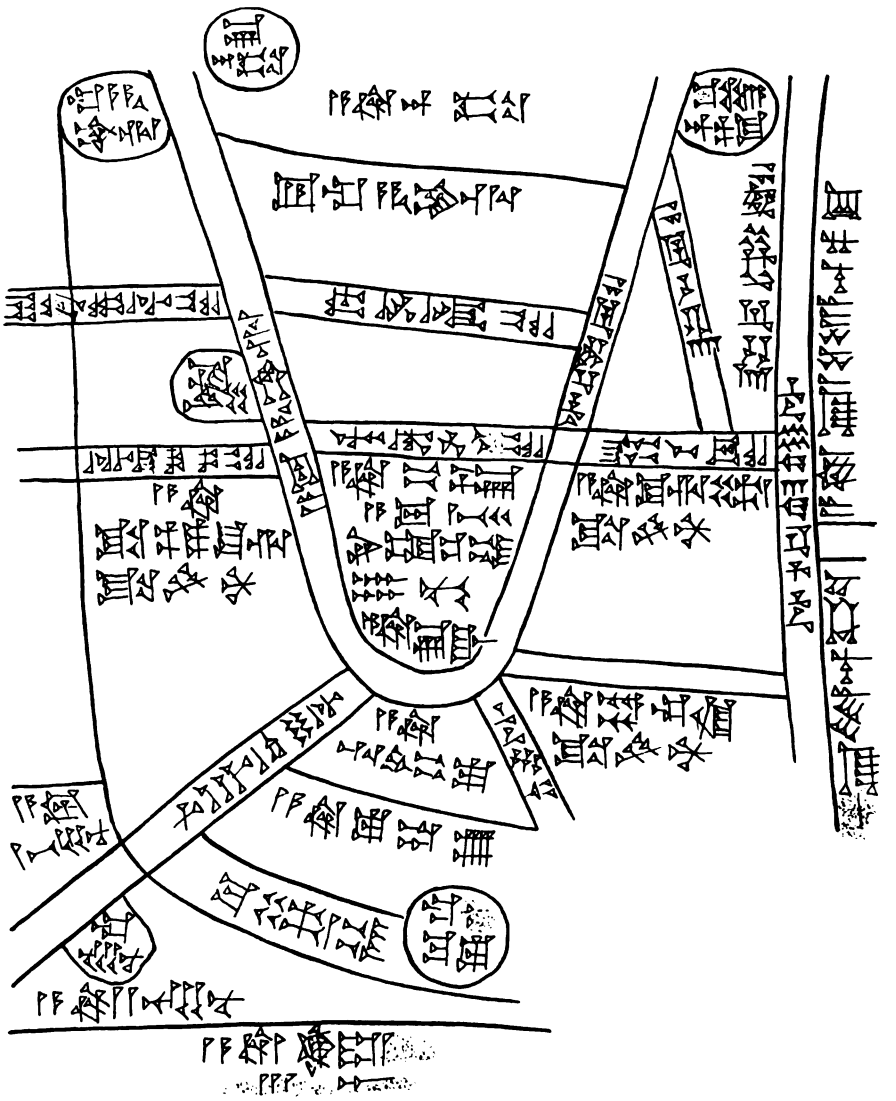

FIG. 203.—Copy of an Ancient Babylonian Map in the University Museum.

at the side," a name also given to a waterway passing from the Nar-bilti southward into this cross canal. The long field thus cut off by these two "Side Canals" on the northeast is called the "Field of the boundary" (ikil la-ma-tum). Bounding the map along the eastern

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edge is a canal running straight north to south called "Irrigation of Bur-rim-maš-hu," a phrase obscure. Beyond the limits of the map on the east are two extensive fields, the one on the north having the name "Field of Bit Kar-Nusku," that is, field belonging to the village Bit Kar-Nusku, which lies in adjacent territory. The name of the village really means "House of the man Kar-Nusku," being named after a wealthy citizen. According to our map the field was a kind of municipal common. South of this field lies the "Field of Bit Nadin-Marduk," also a municipal property.

Occupying the truncated cone shaped space south of the field of the palace at the center of the map is the field Mut-bi-lu, which probably means dry or arid land. South of this field between the canals which enter from the lower corners of the map is the field Lu-du-u, a word of unknown meaning, perhaps a field full of pits or old brick quarries. In the southern edge of this field is the village [ ] ba-lu, and crossing the plane of the map from this village westward to the canal of Bêlšunu, is a wide lane called Ba-li-tum, probably non est, that is the land claimed by nobody and used as a highway. South of this is a triangular shaped field belonging to a man Qatnu, in which is located a village which also bears his name. The same Qatnu owns a field across the canal of Bêlšunu to the west. Beyond the southern limit of the map is the field of Har-ra [ ]. To the east of the field Mutbili across the canal is another part of the lands belonging to the *barû* priests of divination. It has the inscription "Field of the gate of the city" (ikil-Bâb-âli-ki).

It remains to conduct the reader to the northwestern part of the district. Here in the extreme corner is the village Hamri already mentioned situated in a field which bears no name, perhaps the municipal property. South of this area is the field in which we find a village with a curious name Tîl-amel-haššâ, or "Hill of the Fifty men." The local history of this town which would elucidate its interesting name is unknown. The field itself bears no inscription and was probably a village common also. A small canal (a-tap-hu-un-[ ]-i) separates the two village properties just described. The large field of the "table of the *barû* priest" is bounded on the north by the cross canal a-tap paššuri, or "canal of the table." These names refer to the properties settled by royal decree upon this religious order for the support of their table; in precisely the same way certain lands in Europe became the property of monastic orders in the Middle Ages, being destined to provide food for the

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table of the order. The institution still survives in modified form in the charters of the older English universities.

The map also throws a welcome light upon an obscure law in the great law code of Babylonia which bears the name of Hammurapi. In the column XV lines 65 following, we have a reference to the custom of blowing a horn at the village gates to notify the shepherds on the plains that the grazing season was over. These rural villages in which the peasants congregated from the surrounding plain appear to have been so arranged that the village buglers were able to make the shepherds and farmers hear the sound of the horn in every part of Babylonia. The map will suffice to show how carefully the walled villages were assigned to the adjacent rural districts.

S. H. L.

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A RED-FIGURED PYXIS

THE vase which forms the subject of this article is one of the latest acquisitions of the Mediterranean Section of the Museum. It is a pyxis, or toilet box, of the latest period of Attic vase painting, in a style often called the "Kertsch" style, because a large proportion of the vases of this technique have been found in Kertsch, in the Crimea, on the site of the ancient Greek city of Panticapaeum. Enough of them, however, have been found in Attica to warrant the statement that they are of Attic manufacture.

A box like this formed part of the equipment of the toilet table of an Athenian lady of position in the end of the fifth and beginning of the fourth century before Christ. It was used for cosmetics, perfumes, and articles of personal adornment. The unusual feature of this vase, however, is its size; for whereas the greater number of the flat boxes of this period are not more than fifteen centimetres in diameter at the lid, this one has a diameter of twenty-one centimetres. Its height is 7.9 centimetres.

As is fitting for a vase used for such a purpose, the subject portrayed on the lid is one of a nuptial procession. But the painter chose not an ordinary wedding, but the wedlock of the immortals, Herakles and Hebe. For the myth ran, that when he died Herakles was transformed into a god, and given to wife Hebe, the cupbearer of the gods. The fifteenth Homeric Hymn, which is addressed to Herakles, recites his birth and briefly speaks of his labors; and, at the end, says:

> νῦν δ' ἤδη κατὰ καλὸν ἕδος νιφόεντος Ὀλύμπου
> ναίει τερπόμενος, καὶ ἔχει καλλίσφυρον Ἥβην.
> χαῖρε, ἄναξ Διὸς υἱέ· δίδου δ' ἀρετήν τε καὶ ὄλβον.

"But now he dwells rejoicing in the beautiful seat of snowy Olympos, and he has to wife Hebe, of the beautiful ankles. Hail, O King, son of Zeus; give to us virtue and prosperity." This hymn, while later than the Homeric poems, gives us the classical tradition of the life of the great hero among the gods.

This vase painting (Fig. 205) is really to be thought of as divided into two parts: first, the bridal procession; second, the assembly

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of the gods, which awaits it. Herakles, nude, and represented as a beautiful youth, as he generally is on these late vase paintings, with a chlamys thrown over his right shoulder, and left arm, and with his club in his left hand, turns toward Hebe, whose left hand he holds with his right. She is clad in a sleeved chiton of white, richly decorated with an elaborate design of stripes, spots, and a maeander-pattern, in brown and yellow, and wears a necklace and a diadem, which are treated in relief, and were originally gilded. Her hair is black, and on her head is a bridal veil of brown. Her flesh, as is common in this period, is rendered in white. A nude Eros, or love-

FIG. 204.—A red-figured pyxis recently acquired by the University Museum.

god (flesh white) flies behind her, adjusting her veil. On the ground between them a bird is represented, a dove, the attribute of Aphrodite. Then come two bridesmaids, one of whom carries a vase with a long neck, called a "loutrophoros," and used to hold the water for the nuptial bath; while the other carries a chest or casket, which probably contained the bride's jewels. She also carries a shawl. Both bridesmaids wear necklaces and earrings treated in relief, which were originally gilded, although all trace of it has now disappeared. On either side of them is a large chest for the clothing that the bride brings as a trousseau. Herakles and Hebe stand before a low plinth, perhaps to represent the threshold of their new

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home; on the other side of this another Eros (flesh white) stands with a nuptial torch, beckoning them on. Beyond him is another dove.

Advancing to meet the nuptial procession we now have a woman with a torch in each hand. This begins the second part of the picture: for this woman is a goddess, Hestia, the presiding genius of the hearth and of domestic life, welcoming the bride and groom to their home in Olympos. Behind her is seated Athena, the constant friend and patroness of Herakles, wearing her helmet, and with her aegis treated in yellow and white, with a necklace of raised beads (originally gilded) on her neck, and a himation thrown across her lap. Her spear is in her left hand. She rejoices that her hero and protegé has overcome all his earthly burdens, and is now to have eternal happiness.

Behind her, seated on a double throne, and richly clad, are Zeus and Hera, the king and queen of the gods, with their sceptres in their hands, gazing benignly on the youthful pair, while a third Eros (flesh white) leans on the back of the throne, and whispers into the ear of the Father of Gods and Men. An incense-burner stands behind the throne.

Such, then, is the scene that this vase portrays. The reader will notice the skill and freedom of the drawing, which, however, is always marked by dignity and restraint. Abundant use was made of overcolor when the vase was new; lines of drapery and flesh were rendered in purple and brown, and the knobs on the club of Herakles, and beads of the necklaces of Hebe, the two bridesmaids, and Athena, the earrings worn by the female figures, and the diadems of Hebe, Zeus and Hera, were treated in relief and gilded. Most of this gilding is now gone. On the side of the box ran a beautiful myrtle leaf pattern (Fig. 204), in which the berries were also raised and gilded. Nearly all of this is lost; but we can see, nevertheless, that this vase was made as an object of luxury and beauty.

We are fortunate in knowing something of the past history of this pyxis; and this fact adds, of course, immensely to its value, and it should be a source of delight to all, as it is to the writer, that it has been rescued from being a "lost vase," and has found a permanent home in the University Museum. We first hear of it in the famous Forman Collection, which was dispersed in 1899, and many of the vases from it found their way to the British Museum, the Museum of Fine Arts in Boston, and the collection of Mr. James Loeb. This vase is No. 364 in the catalogue of the Forman

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Collection, written by Mr. (now Sir) Cecil Smith, then of the British Museum's Department of Greek and Roman Antiquities, and now Director of the Victoria and Albert (formerly the South Kensington) Museum. Sir Cecil Smith is a man especially well fitted to write on vases, as his knowledge is very great, and his

FIG. 205.—The cover of a red-figured pyxis. The marriage of Herakles and Hebe.

judgment very reliable. He publishes a photograph of the pyxis in the catalogue, to face page 76, and says of it, "In respect of its size, refinement of drawing, and interest of its very unusual subject, this pyxis is one of the most important known."

It then disappears again; nor do we hear of it till 1904, when it is put on exhibition by its owner, a Mr. John Edward Taylor, at the

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Burlington Fine Arts Club, which in that year gave an exhibition of objects of Classical Art. It was considered one of the "chefs d'oeuvre" of the Greek vases in that exhibit, and is again published, this time in the magnificent illustrated catalogue which the Burlington Fine Arts Club issued, and which was written by Mrs. S. A. Strong, a leading authority on Ancient Art, especially well known for her researches in the field of Roman Sculpture. She is now Assistant Director of the British School at Rome. She was very much impressed by the beauty of this vase, and says of it, "This admirable picture is carried out with great wealth of detail, and yet with astonishing sobriety of effect." How it came to America, and when it left Mr. Taylor, does not concern us now; we should rejoice that it is in a museum, where it will always remain, and where its beauty will be a source of delight to the visitor and the student.

Sir Cecil Smith is quite right in saying that the marriage of Herakles with Hebe is rare on vase paintings. Very few vases can so certainly be assigned to the marriage with Hebe as can this. On the other hand, the Apotheosis of Herakles is a very common subject indeed in the Greek vases. Of this subject, there are two methods of representation which predominate: the "Chariot Type," most commonly found in the Attic black-figured technique, in which Herakles is driven, usually by Athena, to Olympos, while other divinities attend the procession; and the "Assembly Type" where Herakles is presented to Zeus, and takes his place in the company of the gods. This type occurs frequently in the black-figured, but is more characteristic of the red-figured technique. It is quite natural, therefore, for interpreters of Greek vase paintings to see, in one of the attendant goddesses in these types, Hebe, ready for betrothal. A close study does not convince one that the figure is really Hebe; and in any case the vases in which she is thus brought in cannot properly be called representations of her marriage to Herakles.

Let us now consider four black-figured "Chariot Type" vases which are plausibly called representations of the marriage of Herakles and Hebe. In these examples, the female identified as Hebe is in the chariot with Herakles. We may, I think, call these true representations of this subject in the black-figured technique. In three of these vases Athena is present as an attendant divinity. The four specimens are the following.

Amphorae: Berlin, 1827 and 1858; Petrograd, 112.

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Hydria, formerly in a collection in Paris.[1]

In another black-figured hydria, No. 253 in the collection of the Bibliotheque Nationale in Paris,[2] in which Herakles is shown in a chariot, a female figure is inscribed with the name Hebe. This is a very early vase, and may be thought of as the earliest possible representation of the betrothal of the hero and the cupbearer of the gods.

A fragmentary black-figured kylix in the Museum on the Acropolis at Athens[3] shows a woman without any divine attributes and therefore possibly Hebe, tenderly greeting Herakles, whose chin she strokes.

These six vases are the only examples in the black-figured technique that show the marriage of Herakles and Hebe. Of the red-figured technique there are only four vases besides this pyxis in which Hebe surely appears, and in two of these she cannot be thought of as being betrothed to the hero. These two are merely representations of the Apotheosis, in which Hebe is surely identified by the pitcher which she holds in her hand. In one of them, she seems to have been inscribed by name, but most of the inscription is gone. Both of these vases are in Berlin: one, a kylix, or drinking cup, is signed by its maker, Sosias. It is No. 2278 in Furtwängler's catalogue.[4] The other, a stamnos, or wine-jar, was acquired by the Berlin Museum since the publication of the catalogue.[5]

The other two vases which surely can be said to represent the marriage of Herakles and Hebe are both late in the red-figured technique, whereas the two that I have just described antedate our pyxis by about fifty years, if not more. One of these two is Attic, and contemporaneous with the vase in Philadelphia; it is a Krater, or mixing bowl, in the British Museum, No. F74.[6] The other is of Apulian manufacture, and is a large Krater with volute handles, in Berlin, No. 3257.[7] In short, this pyxis shows the subject treated in a more compact form than on any other vase of its time that has come down to us.

---

[1] Published by Gerhard, "Auserlesene Vasenbilder," pl. 325.

[2] Published in *Archäologische Zeitung*, 1866, pl. 209.

[3] Published by Graef in his catalogue, No. 1896 on pl. 83.

[4] Best published in Furtwängler and Reichhold, "Griechische Vasenmalerei," pl. 123. Also in Monumento dell' Instituto, I, pl. 24, 25.

[5] Published by Gerhard, "Auserlesene Vasenbilder," pls. 146–147.

[6] Published in Moses "Antique Vases," pl. 13. This is a rare publication, that I have never seen.

[7] Published by Gerhard, "Apulische Vasenbilder in Berlin," pl. XV, and also pl. B, 1–5.

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Three other red-figured vases must now be described, which probably also show this subject, although it is not certain. Each of them has Herakles between Athena and another woman, who is very plausibly identified as Hebe. Two of these vases have supplementary figures. All are of the late red-figured technique, either contemporaneous with, or just antedating, the pyxis in the University Museum. They are as follows.

Krater, of South Italian manufacture, published by Millingen, "Vases de Coghill," pl. 25, and Reinach, Répertoire des Vases Peints, vol. II, p. 8. This vase is now lost. Hermes and Iolaos are the supplementary figures.

Reinach interprets this vase as the betrothal of Hebe and Herakles by Athena.

Amphora of the form called a "pelike" in Berlin, No. 2626, of a period contemporary with the pyxis, in which a winged Victory and Iolaos are the additional characters.[1]

Pitcher, in the Conservatori Palace, Rome. There are no other characters in this vase than Herakles, Athena, and the woman identified as Hebe.[2]

There are several other examples, made after the art of painting on vases was forgotten, with a design in relief of the marriage of Herakles with Hebe. They are all shallow cups, of the form called in antiquity phialae. As they are of a degenerate age in the history of pottery, and as none of them are of Attic manufacture, they do not merit a place in a list of painted vases showing this subject.[3]

One more vase demands notice, a Krater in Bologna, No. 300 in the latest catalogue.[4] In this painting, which is of the late red-figured period, a nude maiden is shown at her toilet, with various spectators. This is supposed by some, including Reinach, to be Hebe preparing for her marriage to Herakles, in the presence of Zeus and Hera; but to the writer this interpretation seems far-fetched.

It has been shown, then, that this is a very rare subject indeed in the Greek vases. There are at most only fifteen vases of

[1] Published by Furtwängler, "Sammlung Sabouroff," pl. 67.

[2] Published in the Bulletino della Commissione Archeologica Communale di Roma, XXXIX, 1911, pp. 68–99, and Figs, 1–2.

[3] Among them are: British Museum G187; Castellani Sale Catalogue (1866) 232 (perhaps the same vase as the preceding); and Annali dell' Instituto, 1871, p. 18.

[4] Catalogo delle Necropoli Felsinee, published 1912. The vase is published in the Museo Italiano di Antichita Classica, II, pl. 2, and Reinach, Répertoire des Vases Peints, I, pp. 522 523.

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classical times that can possibly be interpreted as representing the Marriage of Herakles and Hebe, not including the Hellenistic relief vases. Of these several are very doubtful. In none of the vases is it so well or so completely portrayed as upon the vase in this Museum, which, as scholars have noticed from the time that it was first published in the Forman Sale Catalogue, is one of the most important vases of its period that has come down to us.

S. B. L.

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NOTES

The firm of Lai-Yuan & Co. (Mr. C. T. Loo) has presented to the Museum the original base of the pottery statue of a Lo-han which the Museum purchased in 1914. In the accidents attending its discovery, transportation and removal from China, the statue somehow became separated from its base. It is a piece of good fortune that this should be recovered and restored to the Lo-han, which now presents its original appearance in proper proportions.

Miss Anna Warren Ingersoll has presented a series of wooden carvings of rare design exhibiting much skill of execution, from the Indians of Dutch Guiana.

Mrs. Edward Russell Jones has presented two specimens illustrating the arts and crafts of the Malay Archipelago.

Col. R. M. Blatchford of Fort Sill, Oklahoma, has presented a group of eight Navajo blankets. These blankets, which were collected by Colonel Blatchford during many years of service among the Indians, are first-rate examples and in some instances are of great rarity.

The following is a record of the objects acquired by purchase during the last quarter of the year.

Ten Chinese porcelains of the Ming Dynasty.

Seven pieces of Chinese pottery from the Sung and Ming Dynasties.

Four Chinese paintings of the T'ang, Sung and Yuan Dynasties.

Twenty-four pottery figurines from the graves of the Han and T'ang Dynasties.

Two glazed wall tablets of the early Ming Dynasty.

One relief of the Han Dynasty and four reliefs of the Ming Dynasty.

One cloisonné vase of the Ming Dynasty.

Two antique embroidered velvet hangings of the Ming Dynasty.

One black-figured Attic vase.

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Three red-figured Attic vases.
One Dipylon vase.
One white lekythos.
Various ethnological collections of the North American Indians amounting to about 250 specimens.

The Eckley B. Coxe, Jr., Expedition to Egypt resumed excavations on the 1st of November at Dendereh.

By the will of Mr. Eckley B. Coxe, Jr., late President of the Museum, the sum of $500,000 has been bequeathed to the Museum for the purposes of endowment.

The City Councils have appropriated the sum of $25,000 for one year as a supplementary contribution to the maintenance of the Museum. Never before has the Museum received money from the city. The Councils have been moved to take this step on account of the public service of the Museum and as a supplement to the private contributions upon which the Museum has been built and which continue to enable it to carry on its work.

Mr. C. Emory McMichael has been elected a member of the Board of Managers of the Museum.

The following persons have been elected to membership in the Museum.

Sustaining Members: Franklin B. Wiley, T. J. Wisecarver, Edward F. R. Wood.

Annual Members: F. W. Ayer, Charles W. Asbury, Mrs. Frederick K. Bickley, Mr. Richard B. Brinton, Mr. George E. Earnshaw, Jr., Walter L. Foulke, William P. Gest, Charles M. Lammot, Mrs. John C. Martin, Mrs. Robert T. Mickle, Miss Julia E. Montgomery, Mrs. Jesse Nalle, G. Colesberry Purves, Mr. E. P. Rawle, Mr. A. G. Rosengarten, Mr. John D. Samuel, Mr. P. M. Sharples, Dr. John Speese, Dr. Joseph Sailer, Mrs. Sidney Thayer, Mr. Henry M. Watts, Mr. John S. Wentz, Mr. L. Caspar Wister, Miss Marion Biddle Wood, Howard Wood, Jr.

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All classes of members are entitled to the following privileges. Admission to the Museum at all reasonable times; an invitation to any regular reception given by the Board of Managers at the Museum; invitations and reserved seats at lectures; the Museum Journal; Copies of all guides and handbooks published by the Museum and free use of the Library. In addition to the privileges to which all classes of members are entitled, Sustaining Members and Fellows receive, upon request, copies of all books published by the Museum.

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THE UNIVERSITY MUSEUM

FOR ART
FOR SCIENCE
FOR CIVILIZATION

PHILADELPHIA
MARCH, 1917

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¶ The Purposes of the University Museum

¶ To give to Philadelphia a Museum that will be in keeping with its traditions, that will answer to its needs and that will sustain its historic repute as a Stronghold of Civilization.

¶ To assemble collections that will illustrate the achievements of Mankind in the field of Art, and to cherish and preserve this Heritage from the Past.

¶ To trace the origin of Civilization and to reconstruct the successive steps and the varied episodes that have attended its development.

¶ To encourage the Arts; and to demonstrate the debt that Civilization owes to the Artist and to the Craftsman.

¶ To encourage Research, to send out expeditions to excavate the buried cities of Antiquity and bring to light the records of the Past; to gather and preserve the early Arts and ancient Lore handed down by the vanishing races of Mankind.

¶ To promote a knowledge of Humanity and to disseminate that knowledge by lectures, by publications, by cooperation with the schools and through the medium of the University; to illustrate the unity of all races and the diversity of their Art, to inculcate a better and more sympathetic understanding of all peoples and to afford a just measure of the contribution that each has made to Civilization.

¶ By bringing the people into direct contact with the visible Past and its prolific life, to exert a civilizing and humanizing influence upon our manners and habits of thought.

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DR. CHARLES CUSTIS HARRISON

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THE MUSEUM JOURNAL

VOL. VIII PHILADELPHIA, MARCH, 1917 No. 1

DOCTOR HARRISON ELECTED PRESIDENT

AT a meeting of the Board of Managers held on January 19, Dr. Charles Custis Harrison was elected President of the University Museum. The labors connected with this office are not new to Dr. Harrison: as Provost of the University he always appreciated and encouraged the Museum's work, and as Chairman of the Executive Committee of the Museum he has for several years participated actively in all of its labors, rendering with the utmost disregard of himself, a loyal and devoted service to his City and his Country.

From all points of view no action could have been more fitting or more fortunate than the election of Dr. Harrison to succeed Mr. Eckley B. Coxe, Jr., in the office of President of the University Museum. Working together for years toward the same end, there always existed a close association and a deep sympathy between the late President and the ex-Provost of the University. In 1910, after he had retired from the Provostship, Dr. Harrison stated that his chief incentive for taking up the active work of the Museum was a feeling of loyalty towards Mr. Coxe and a desire to help him in the important service which he was rendering to the public through the Museum and through many other channels.

This happy relationship, based on mutual esteem, has been a source of strength to the Museum and has enabled it to enter upon a period of useful activity. The traditions that belong especially to Mr. Coxe's term of office and that are closely identified with his personality, are, through the election of Dr. Harrison, passed on and perpetuated under the present administration.

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In these circumstances, the Museum, the University and the Community at large have many reasons to be congratulated. Among the first of these reasons there stands out Dr. Harrison's staunch and unselfish devotion to well considered public interests, combined with his breadth of vision and intellectual force. The complement of this is the responsive attitude of the country to any movement under his leadership. It is also worthy of note that there is a close correspondence between the Museum's interests and Dr. Harrison's achievement. His long and productive public service as Provost of the University carried with it an unusual experience in dealing with the practical problems of education, and his purposes, as they were carried into effect, brought to bear an elevating influence in the Community that gradually extended itself throughout the Country and met with honored recognition abroad. The Museum's proper work as an instrument for culture and for promoting education applies first to the City and the State, reaches out toward the national welfare and is echoed by responsive spheres of influence in other countries.

It is indeed rarely that a public institution has had at its head a succession of officers who, like Mr. Coxe and Dr. Harrison, from a pure sense of duty and devotion, have ever stood ready to give their time, their energies and their private means freely to its service. It is perhaps even more rare that an institution finds a man to its need who, by experience and by aptitude, is so eminently fitted to render such a service as Dr. Harrison. The motives which led him seven years ago to take up the active work of the Museum have already been stated and they underlie his interest today, but our understanding of that interest would be incomplete if we failed to take account of the fact that in the University Museum Dr. Harrison has found a field of labor that is in keeping with his ability, in harmony with his taste and worthy of his great energy and his distinguished career. He has often expressed his regret that, although Paris has the Louvre, although London has the British Museum and the South Kensington, and although New York has the Metropolitan, Philadelphia has nothing that corresponds to these great Museums. Yet each of these, in the city which it adorns, is considered not only a source of pleasure and recreation, but an indispensable factor in the intellectual and moral welfare of its population.

It is an unusual opportunity that now presents itself to Philadelphia to gain some of the privileges and elements of distinction

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that a Museum affords and that are enjoyed by every other great city in the world. With the confidence that Dr. Harrison inspires everywhere and with the support to which he is so eminently entitled and which has been accorded him in the past, there is no reason why his well considered plan for a Museum should not be quickly developed. If this plan should nevertheless fall short of complete fulfilment it will be through no failure on the part of Dr. Harrison, who has already shown his willingness to work and who has abundantly proved his public spirit.

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AN ATTIC GRAVE STELE

ONE of the most important pieces of Greek sculpture that has come to America in recent years has just been acquired by the University Museum. It is a stele or grave relief, and belongs to a class of monuments which, like our modern tombstones, were erected in memory of the dead to mark the places of their burial. Such monuments are today rarely met with in museums outside of Greece. Their size and, on the whole, their general excellence, make them much prized by the archæologists of Greece, and by all who are interested in the history of art.

This stele is roughly 1.55 meters high and 90 centimeters wide, the typical size of the best of these monuments. It is of Pentelic marble, which has turned to a deep brown. This patina is unusually good, and rich. The stele has been split in two, and I fear that this was done intentionally: fortunately, however, the two parts join quite perfectly in front. Underneath the chair of the seated figure there is an old break and a fragment is missing.

The subject represented by the sculpture is one not uncommon among these grave reliefs. A woman, seated in a straight chair, holds the hand of a man who stands in front of her. This woman is the deceased, over whose tomb the monument was placed. Her face wears an expression of calm; and, indeed, in none of the three figures is there any thought of suffering or pain. There is no suggestion of the trappings of death that is too often the prevailing idea with modern burial customs, and which figure all too frequently on the tombstones in our cemeteries. In fact, into this scene of farewell, of the fourth century before Christ, we can read a message of immortal life that is really Christian in spirit. The calm and peace which these figures show seem to prove their belief that in a better world they will meet again and renew their intimate relations, and that the parting is but temporary.

The woman wears a simple, yet extremely graceful, costume. Her undergarment, or chiton, is made with sleeves, which are formed by bringing the ends of the drapery together by a series of brooches. These sleeves, if, indeed, they can be so called, extend only to the elbow, leaving the forearm bare. Over this chiton a heavy wrap,

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FIG. 1.—An Attic Grave Stele of the Fourth Century B. C.

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called a himation, is thrown shawl-fashion over the shoulders and lies across her lap. Her feet, clad in sandals, rest on a footstool. Her hair is short and curly, done in a coiffure of rather studied simplicity.

The man whose hand she clasps, and who is in all probability her husband, stands before her. His face, though calm, shows deep feeling and affection, and there is a certain nobility about his entire aspect. He wears merely a himation, which falls over his left shoulder, leaving the right shoulder, the breast, and the right arm bare; below the breast this garment is draped around him, and reaches to his feet. He has thick, wavy hair, and a full beard.

In the background, between the two principal actors in this little scene, is another man, somewhat older in years, perhaps the husband's father. He, too, has a full beard, thicker and heavier than that of the husband, and thick hair; but although his hair is of a much thicker growth, he is evidently older than the others. He, too, wears a himation only.

All three figures are carved in very high relief, the heads being almost in the round. This is a sign of relatively late date, perhaps the second half of the fourth century B. C. The preservation of the figures is remarkably good.

Before enlarging on the artistic excellence of the relief, it will be necessary to discuss the remaining peculiarities of this stele, both architectural and epigraphical. Let us, therefore, first examine what may be called its architecture. The figures are enclosed in a temple-like structure, as is almost always the case with these grave reliefs. At each end of the stele is an anta-column of the Doric order, perfectly plain, and topped with a simple capital. Resting on them is a lintel, or architrave, bearing an inscription. Above this is a molding, on which can be traced an egg and dart pattern. Then comes a plain cornice, surmounted by another similar molding. Above this comes the roof. And here we have a real peculiarity. Most of the stelae that have come down to us have a roof as seen from the front, with a tympanum; this, however, departs from the usual custom, and has the side view instead. Thus, we find that this stele is not only remarkable for its artistic excellence, but for certain archæological peculiarities. In this side view even cover tiles are inserted, the two at the end being represented as corner tiles. The central cover tile is surmounted at the ridge by a boss of marble, held in place by a seal of lead, in a hole that has been

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drilled for its reception. It seems likely that this may have been for the base of a palmette, or for some other ridge ornament; for such decoration was not unknown among the Greeks.

As has been said, there is an inscription running along the architrave. At first, the correct reading of the inscription, and the solution of the problem that is offered, were difficulties that seemed almost insurmountable. In the first place, it is very lightly cut in the stone, and is almost illegible, so that I am not certain that the readings offered are altogether correct; in the second place, part of it is in one line only, part in two. Various methods were tried to read this inscription, which, as has been said above, was almost illegible. It was finally decided to make a plaster cast of the inscription in the hope that by this means all the letters would come out clearly. In this method the problem that was offered has been satisfactorily solved. There is really not one inscription on the lintel, but three; and these are the names and patronymics of the three persons represented in the relief. The name of the woman, as we find it on the inscription, seems to have been

ΚΡΙΝΤΙΑ ΑΣΤΡΑΤΙΟΤΘΥΓΑΤΝΡ

Κρινυία, Ἀστρατίου Θυγατήρ, meaning, "Krinuia, daughter of Astratios."

The man in the center has, over his head, the following legend:

ΝΑΥΚΛΗΣ
ΝΑΥΚΛΑΙΟΥΣ (?)
Ν . . . . . .

Ναυκλῆς Ναυκλαίους (?) Ν—(rest illegible), or "Naucles, the son of Nauklaies, N—."

The woman's husband bears the name

ΝΑΥΚΛΑΙΝΣ (?)
ΗΑΥΚΛΕΙΟΥΣ
ΝΑΥ . . . ΕΥΣ (?)

Ναυκλαίης Ναυκλείους, Ναυ—ευς (?)

"Nauklaies the son of Naukles, Nau. . .eus(?)." This latter is probably the name of the "deme" or district in Attica, of which he was a citizen.

The faintness of this inscription makes the above readings subject to criticism, and I do not vouch for their absolute accuracy;

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but, in the main, I am satisfied with these interpretations. Some scholar may, in the future, take occasion to differ with me, and his readings may be better than mine. I should in that case be very glad.

A discussion of the technique and artistic value of this stele must be qualified by one very important statement. We must constantly bear in mind the fact that only under very exceptional circumstances were great sculptors employed to make these reliefs. We moderns do not, as a rule, employ our greatest sculptors for our tombstones; no more did the Greeks. They chose artisans and stone-cutters to make these monuments. Yet, so great was the technical skill of these workmen, and so universal the feeling for beauty among the Greeks, that these stelae, never by them considered works of art of importance, are to us not only sources of fruitful and profitable study for the archæologist and research-worker in classics, but objects of joy and delight for all who love beautiful things. The existence of such an object in Philadelphia will be a constant reminder that the people who produced it cannot without irreparable loss be thrown into the discard of education. The presence of this stele in the University Museum should be in itself a powerful incentive to the teaching of Greek and Latin in our schools.

S. B. L.

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A GROUP OF GREEK VASES

DURING the year 1916 the Mediterranean Section of the University Museum acquired six vases of great importance. One of these, a red-figured pyxis, or toilet box, was described and illustrated in the last number of the JOURNAL. Another black-figured amphora is reserved for an article in a future number which will include a group of vases in the Museum which illustrate the exploits of Herakles.

A DIPYLON AMPHORA

In the eighth century B. C. there was manufactured at Athens a style of pottery which is known among archæologists of the present day as Dipylon ware. This name has been adopted because the potter's quarter of that period appears to have been in the neighborhood of the Dipylon gate of Athens and because in the vicinity of that quarter quantities of this pottery have been found in the ancient tombs.

The Dipylon ware belongs in that class which is commonly called geometric, because it is covered with decorations, among which may be found straight lines, circles, squares, triangles, zigzags, and rectangular meanders, together with figures of men and animals drawn in a style peculiar to the period.

The collection of Greek vases in the University Museum has always been lacking in examples of Greek geometric ware generally and especially in examples of this Attic geometric or Dipylon ware. Dipylon vases are but rarely found and it is seldom that an American Museum has an opportunity of acquiring a specimen.

It is, therefore, a matter worthy of note that the University Museum has acquired a perfect example of the class. It is an amphora 43.5 centimeters in height, a fair size for vases of the class, although examples have been found of much greater height.

On the lip of this amphora runs a serpentine band of clay in high relief, painted red. This, combined with similar snake-like patterns on each handle and on the shoulder, may possibly point to the serpents sacred to Asklepios, the god of healing, and suggests that the contents of this amphora may have had medicinal properties.

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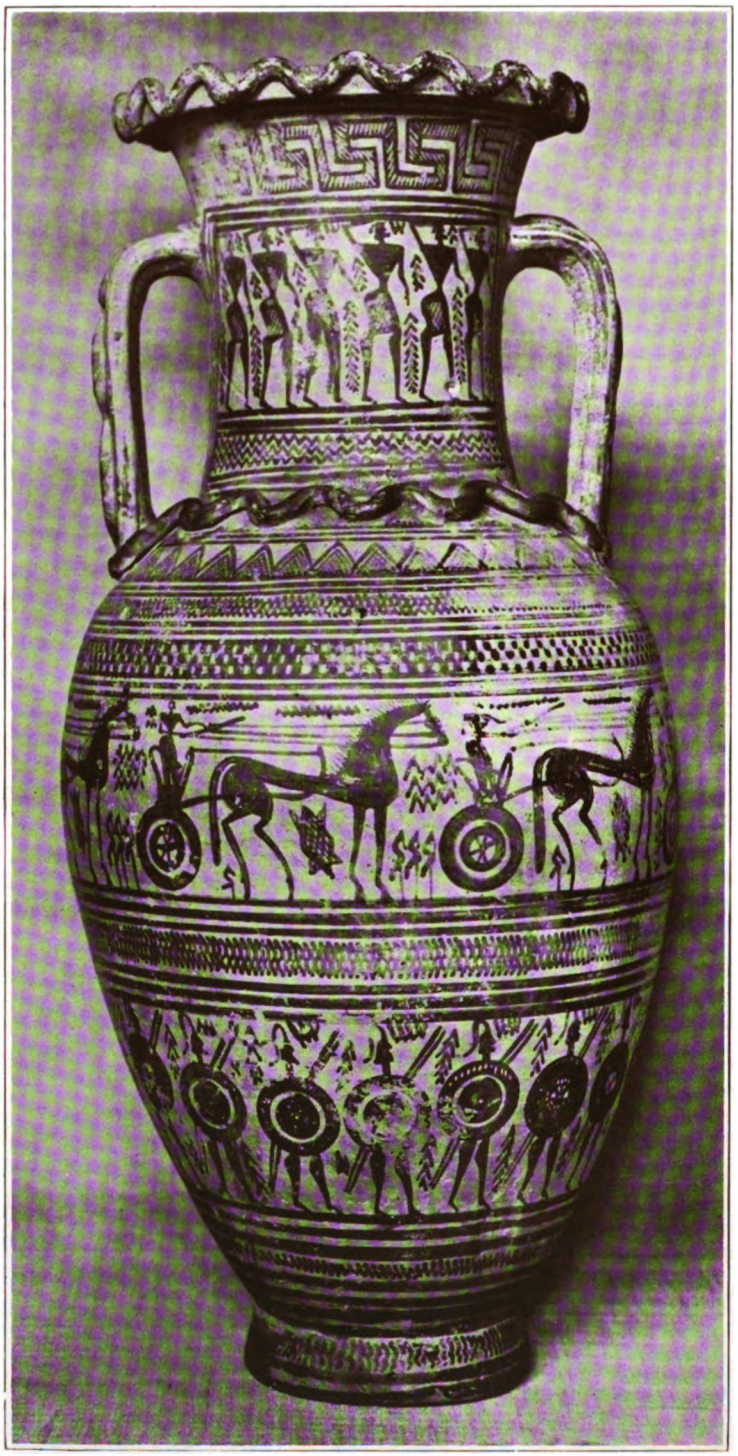

FIG. 2.—A Dipylon Amphora.

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This suggestion is not considered probable by the writer; but it is a possibility.

On the neck, from the lip to the junction of the handles, runs a heavy "maeander" or "Wall of Troy" pattern. This is of the color of the clay, enclosed in black lines, which, as is true all over the vase, have turned red in places from over-firing. These outer lines are connected by cross-hatchings of black.

Below this is the principal representation of the neck: a group of men, each with his right arm raised, marching in procession. Notice the geometric drawing of these men and the lack of anatomical knowledge shown; for this drawing is characteristic of the "Dipylon" technique. In the field are ornaments supposed to represent foliage. This same conventionalized foliage is shown on the handles, and in all the bands of decoration where human figures occur. On the reverse women take the place of men in the neck decoration. Underneath these panels on the neck, which are enclosed on all sides by three heavy lines, a scale pattern appears which joins the neck to the shoulder.

As is usual in amphorae, the shoulder and body merge together. At the top, connecting the two handles, is found the serpentine motive, to which reference has already been made, underneath which is a design of triangles. This is separated from the neck by three lines; all of the bands of decoration are separated from each other by lines like these. Under these triangles comes a second set, then a lattice-work pattern, and finally a checker-board pattern. Then follows a typical band of painting, to be found in nearly every Dipylon vase that ever was painted. It is a band of chariots, in the characteristic manner of the period. Again, the geometric drawing both of men, chariots, and horses, should be noticed, especially the elongated bodies of the latter. Notice also the attempt to render both wheels by putting one inside the other. In the field we find more conventional foliage.

Between this band and the next are lines, on either side of a lattice-work pattern. Then comes a band of warriors. This, too, is a very common form of decoration, and almost universally found on vases of this class. These warriors carry the common round shield and spears. This is not always the case; for often on other vases of the same period warriors are shown carrying an enormous shield, in shape much like the body of a violin. This is called a Bœotian shield, from the place of its principal manufacture.

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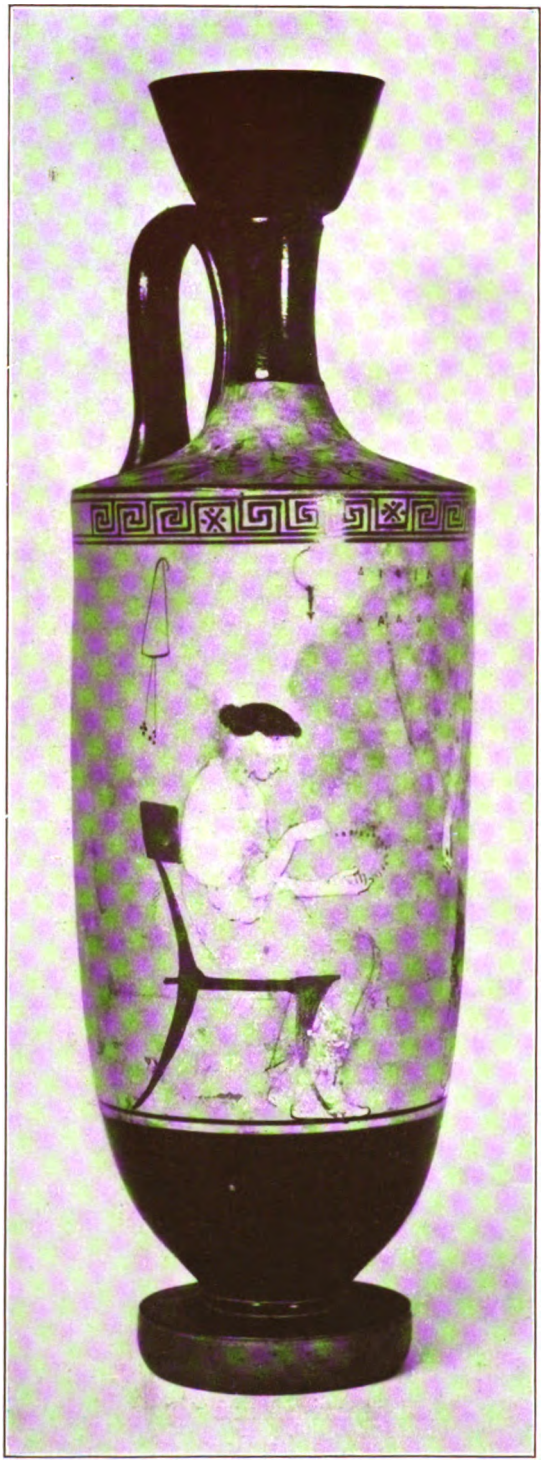

FIG. 3.—An Attic White Lekythos.

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FIG. 4.—An Attic White Lekythos.

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FIG. 5.—An Attic Red-figured Amphora. Obverse.

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Below this band of warriors, and on the foot, are horizontal lines, and a lattice-work pattern.

One point that will at once attract the notice of the observer is, that the chariots, while represented with a pole, seem to be drawn by one horse only. This is in reality not the case; the driver had at least two horses to his chariot, as the number of reins in his hand prove. The archaic vase-painters were not sufficiently versed in the art of perspective to render two horses.

A question arises: from what source does this geometric ware come? Archæologists used to believe that the Dorians, when they invaded Greece, brought with them their own technique of pottery, and that it was this geometric style. This theory has been largely abandoned, and it is now believed that we must go to Crete and Mycenae for our sources. This belief has been turned almost to certainty by the excavations of Miss Edith H. Hall (now Mrs. Joseph M. Dohan), at Vrokastro, Crete, in 1912, conducted under the auspices of the University Museum. At that site early geometric and post-Mycenaean pottery were found together, showing that they were probably contemporaneous, although it is but just to say that Miss Hall reaches the conclusion that the presence of geometric ware on this site marks the Dorian invasion of Crete. To the writer, it seems more plausible to adopt the conclusion reached by Miss Richter of the Metropolitan Museum in New York, who declares in a recent article that "the post-Mycenaean geometric style is a continuation of the pre-Mycenaean geometric technique."

In acquiring this vase, the University Museum has taken a great step in filling the gap in the continuous study of Greek vase-painting, which should be one of the ultimate goals sought by the Mediterranean Section. For this Attic geometric technique is perhaps as important as any of the later styles; and it is certain that no student can understand the later development of Greek vase-painting, until he can study the earlier specimens. We must constantly refer back to examples of this epoch in the history of Greek ceramics, in order fully to appreciate the excellence of the later periods.

Two Attic White Lekythoi

Another of these vases recently acquired also tends to fill a gap in the Museum's collection of Greek pottery. This is an Attic white lekythos (Figs. 3 and 4) of the fifth century B. C. As is well known

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to the reader, these vases were not meant for household use; their purpose was strictly funereal, and they have invariably been found in tombs. Moreover, there is a possibility that in the late period of Attic vase painting, the makers and decorators of this class of pottery confined themselves to this branch of the ceramic art; for a passage in Aristophanes' comedy of the "Ecclesiazusae" or "Women in Council" (lines 995, 996) refers to "the man who paints the lekythoi for the dead" (ὃς τοῖς νεκροῖσι ζωγραφεῖ τὰς ληκύθους) as if it were all that he did. On the other hand, we have ample evidence that the leading artists of the early red-figured technique were also capable of work in the field of white ground vases. The example recently acquired is, as will be shown, early in style.

The subject of this recent acquisition is of great beauty, simplicity and restraint. At the left sits a woman (Fig. 3) with a circle of beads in her hands; she is evidently stringing them for use as a necklace. The chair in which she sits is of a graceful and beautiful design, and is drawn in a black wash on the cream-colored background. Her hair is rendered in the same manner. She is wearing two garments, a "chiton" and a "himation," the "chiton" being the undergarment. This is rendered in a chalky white, much of which has flaked off, the idea being in this manner naturalistically to show the brilliant white of clean linen. The "himation," being a shawl-like wrap of a heavier material, was rendered in the color of the background. Flesh parts are in this same chalky white, in a manner which, as will be shown, is peculiar to the maker of this vase. Above her, in the field, are hanging a mirror, and a long pouch, drawn together with strings, called by archæologists a "sakkos."

In front of her stands another woman (Fig. 4), in a long, simple chiton, without sleeves. In her left hand she carries a large tray or basket, from which hang three fillets of white, and two longer ones of red, and which is filled with offerings of various sorts. Her right arm and hand hang at her side, and are most beautifully rendered. Above her in the field hangs an exquisite little pitcher. Between the two women is inscribed the dedicatory inscription, ΔΙΦΙΛΟΣ ΚΑΛΟΣ, "Diphilos is fair."

Before coming to the Museum, this vase was at one time in the Borelli Bey collection, which was dispersed in Paris in 1913. In the sale catalogue, it is given the number 223, and is published on pl. XXIII. For purposes of convenience, and to avoid con-

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fusion with the other white lekythos to be described, this vase will be called in the rest of this article the "Borelli lekythos."

Many vases are known that bear the same dedicatory inscription to Diphilos, and nearly all are white lekythoi. Furthermore, it is possible surely to identify all these lekythoi as by the same hand. The artist uses other dedicatory names as well, of which Dromippos is the principal example; but Diphilos is the most common, and we know his father's name, Melanopos, as some of these vases give it. The artist's principal peculiarity is the use of chalky white for flesh parts, to which reference has already been made.

It is not necessary here to go into details, and show how we can date these "Diphilos" vases: it will be sufficient to point out that they have been proven by such scholars as Bosanquet, Fairbanks and Riezler, to be early in the history of Attic white lekythoi, and it is not without good reason that we can safely put this Borelli lekythos in the period of which the central date is 465 B. C. Nor will it be essential here, scientifically to put this vase into the class in the history of the white ground technique in which it belongs. Suffice it to say that it satisfies all the most rigid tests to which it could be subjected, and may safely be considered by the same hand that painted the fifteen or sixteen other white lekythoi with the same inscription, scattered through the museums of the world, and particularly, of course, in the National Museum in Athens.

Before turning to the second white lekythos, the writer wishes to bring out two points of comparison, on which he will lay much stress. First, we should notice the shape of the Borelli lekythos. Much of the dating of these funeral vases is based, not only on the technique of the drawing, and, in this case our knowledge of the identity of the person to whom the vase is inscribed (but such dedicatory inscriptions are very rare on white ground vases, which makes this vase all the more important), but on the shape of the vase. In this example, it is well nigh perfect, in the relation of the length of the neck to that of the body, in the beautiful bell-shaped mouth and gently sloping shoulder. It represents the very acme of the lekythos shape.

The other point is in the white ground and its composition. In this specimen, we find a hard, firm slip of cream color, perfect in preservation, unbroken and of extreme beauty. The early white lekythoi are all marked by this fine white ground.

The second vase has, as its design, two figures making offerings

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FIG. 6.—An Attic Red-figured Amphora. Reverse.

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at a stele. Not meriting publication in itself, it nevertheless is important for purposes of comparison with the example just described. In the Borelli lekythos, we have the perfection of form of the early (and best) period; here, the neck is too long for the body, the body, in its turn, too short and attenuated for the neck, and the whole shape marked by carelessness of execution.

We notice, too, a great change in the texture of the white ground. In the Borelli vase, we commented on the firm, hard, and slightly lustrous slip of cream color. The vase painters of the period in which this specimen was made had either lost or discarded the art of creating such a white coat. Here we find the white to be extremely chalky and dead, easy to rub off, and, for that reason, hard to preserve. The design was originally very brilliant, as the vase was made at an epoch when polychromy had attained a great range; but owing to the poor quality of the slip, most of this has disappeared.

This comparison goes to show the great beauty and importance of the white lekythos recently acquired by the Museum.

Two Attic Red-Figured Amphoræ

At the same time that the vases already described were obtained, the Museum also acquired two other amphoræ. These are of the Attic red-figured technique, and were made in the middle of the fifth century B. C.

One was found at Capua, which at the time this vase was made, was probably still under the Etruscans. It must have already begun to have the reputation for luxury which it certainly had two centuries later, and which became proverbial. Quantities of beautiful Attic red-figured vases have been found in tombs of this period at Capua, most of which are now in the Museo Nazionale at Naples. Capua was founded, according to tradition, by the Etruscans, about 600 B. C. Just after this vase was painted, or, in other words, in the last half of the fifth century B. C., the Etruscans lost the city to the Samnites, who soon became dependents of Rome. If our surmise is correct, this vase marks the last stage in the Etruscan domination, when commerce with Attica was still flourishing.

To return to the vase itself. Under the handles and on the neck are beautiful designs of palmettes. On the obverse (Fig. 5) we find two deities on either side of an altar. They are easily

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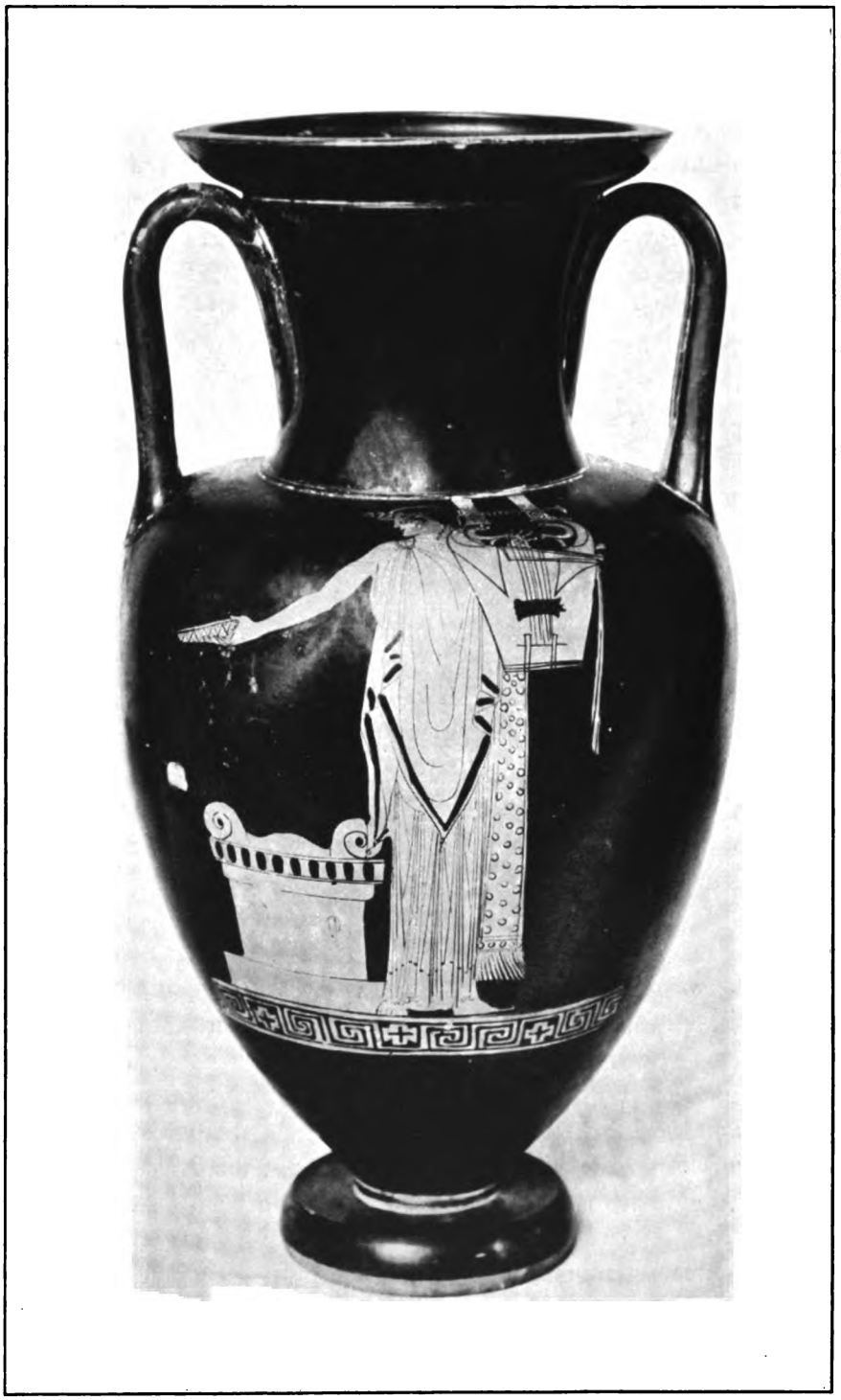

FIG. 7.—A "Nolan" Amphora. Side A: Apollo.

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identified as Apollo, with his lyre, and his sister Artemis, with her bow and arrows. Apollo holds a phiale, or patera, in his right hand; he is pouring a libation on the altar. Artemis does the same, from an œnochoe, or pitcher, in her right hand. Both wear beautiful and elaborate draperies, very carefully executed and falling in graceful folds. The drapery in each case consists of the "chiton" and the "himation," which were explained in that portion of this article which dealt with the white lekythos. The himation of Apollo is especially elaborate and carefully rendered.

On the reverse (Fig. 6) is a different scene. At the right is Dionysos, the god of wine, bearded, and with a wreath of ivy on his head, draped in a chiton and a long himation. He stands in an attitude of calm, with his thyrsos in his left hand and wine-cup or kantharos in his right, in marked contrast to the "fine frenzy" of the Maenad, or Bacchante, who rushes towards him. She is clad in a long sleeved chiton, over which is the traditional panther skin. In one hand she grasps a serpent, in the other (which does not appear in the photograph) she holds an œnochoe, or pitcher. Her hair, dressed in long ringlets, flies behind her.

The technique of this vase points to the first half of the fifth century B. C., the "strong style" of the Attic red-figured period. That this is true is proven by the drawing of the eye in the various figures. The artist does not know how to render accurately the eye in profile; but he knows too much to put it in full face, as do the earlier red-figured artists of the "severe" style. This would point to the end of the first half of the fifth century B. C., as a good date for this vase. Until this amphora was acquired, the Museum had no very good examples of this period, other than one or two kylikes, or drinking-cups; so that this vase, like the others described, is a most important accession.

The other red-figured amphora (Fig. 7) is of the shape called "Nolan," from Nola in Campania, where the earliest examples of this shape were found, and which has continued to yield the greater number of specimens of this type. The provenance of this amphora is unknown, but it probably came from an Italian site. It is probably of later date than the vase from Capua, as is shown by the more correct drawing of the eye, and the fact that while great care is expended on one side, the other is carelessly drawn, showing that only one side was meant to be seen and examined closely.

The front picture is of Apollo. He stands before an altar, in a

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very erect position, with his lyre in his left hand, and a phiale, or patera, in his right. He wears a long chiton of fine linen, the quality of which is admirably indicated by the great number of lines which break up the light material into countless folds. Above that is a himation of heavy material, perhaps wool, fastened at the right shoulder by a brooch. The texture of the material, and the heavy folds into which it falls are admirably reproduced by a most judicious use of a relatively small number of lines. From the himation, on the right, falls a stole-like object, ending in a fringe. On his head is a wreath of laurel. On the reverse (not illustrated), is a woman with a pitcher, very carelessly drawn.

Until this vase was acquired, the Museum had no specimen of the "Nolan" amphora shape on exhibition, which gives the accession of this vase an additional interest.

S. B. L.

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THE EPIC OF GILGAMISH

IN the year 1914 the University Museum acquired by purchase a Babylonian tablet of quite exceptional interest and importance. It measures 6¼ inches by 7 inches and is in a good state of preservation. Obverse and reverse are fully inscribed and only a few lines of the inscription are missing. The place where it was found is not known. It was written in what is called the Neo-Babylonian and Persian period at some time between the sixth century B. C. and the third century B. C. and contains a portion of the great epic of Gilgamish. The importance of this tablet arises from the fact that it contains, with the exception of a few lines, the entire second book of the epic, a book which is missing from the famous fragments in the British Museum. It therefore enables us to restore a lost section of the great poem.

When the British excavators found the great library of Asurbanipal at ancient Nineveh, one of the most important discoveries that came to light was a series of twelve tablets or fragments which in its complete state had contained the most famous epic of the ancient Babylonian world.[1] Of these twelve tablets and fragments, certain numbers were missing, and among these was No. II in the series. It is the text of this tablet No. II that is contained on the tablet in the University Museum.

The physical structure of the tablet is that common to epical literature and was first adopted by the Sumerians, the six column form. But there is one new element in the making of this document which I have not seen before. On the left edge near the top and bottom two flat clay knobs have been attached. A similar knob in perfect condition remains on the upper edge near the left side.

I believe that these little clay knobs were attached in order to enable the scribe or a reader to hold the tablet by the left upper corner more easily. These projections are so placed that the left hand enclosing the left upper corner grasps one knob with the forefinger and the other with the thumb. When the tablet is turned over vertically and the lower side is then at the top, according to

[1] The tablets in the British Museum were published by Professor Paul Haupt, and translated into German by Jensen and into French by Dhorme.

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the Babylonian method of turning tablets, then the lower left corner becomes the top left corner. In that position the knob on the lower left edge served for the thumb and one, now broken away on the lower edge near the left side served for the forefinger.

FIG. 8.—The Epic of Gilgamish. Tablet in the University Museum.

The epic of Gilgamish was produced about the twenty-second century B. C. and has been generally accorded a high rank in universal literature. In the age when the Babylonian poets created this great poem of pessimism the old Sumerian civilization was passing away. That highly endowed and peace loving race ended

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its career in a passion for emperor worship and the deification of temporal rulers in whom they saw men divinely sent to restore the golden age, to end sorrow, toil and pain. But events belied their claim and a wave of pessimism overcame the hopes of mankind. The epic of Gilgamish was written with the major motif of showing how not even a demigod who partakes of the nature of mankind can by the most heroic efforts escape the terrors of pain and death. To teach the world this view of life the Babylonian poets chose an ancient, half mythical king of Erech, Gilgamish. Erech is mentioned in Genesis X as the home of Nimrod, and because in Babylonian and Sumerian legend, Gilgamish is invariably connected with the same place, it is generally supposed that Nimrod and Gilgamish are the same. Our chief source for the text has been the copy made by the scribes of Assyria for the library of Asurbanipal in the seventh century B. C. which, as already mentioned, was found at Nineveh and is now in the British Museum.

The tablet in the University Museum belongs to a south Babylonian version, probably the one accepted at Erech and differs from the Assyrian text, as we know from those parts wherein the new text is a duplicate of the Assyrian. Including the new tablet in the series we are now able to reconstruct the following outline of the epic.

Book I begins with the line "He that has seen all things . . ." and consequently the Babylonians always referred to the epic as *ša nagba imuru*, "He that has seen all things." The poet sings of the vast intelligence of this ancient king Gilgamish, he who saw the mysteries and the hidden things.

"He concerned himself with the wisdom before the Flood.
He took a far journey, painfully. . . ."

He was two-thirds god and one-third human and was the son of a mortal and the mother goddess Ninsun, worshipped at Erech as the local *bêlit* or lady. He became a hunter and was called the "shepherd of Erech." Taking advantage of his superhuman powers he ruled cruelly over the people, who appealed to the gods for deliverance. Aruru, the mother goddess, is invoked to create a rival to oppose the cruel king that "They may rival each other and Erech have repose." And so this goddess, to whom the creation of man from clay was attributed, took clay and fashioned Enkidu the hero, a wild satyr whose body was covered with hair. He represents in our

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story the pastoral stage of civilization, and from this point in the first book to the end of Book II the principal motif is to show how the rude barbarian of the fields loses his attachment for the chase, the tending of the flocks, and enters civilized society.

"He knew not the peoples nor the land; clothed in a garment like Gira,[1]
With the gazelles he ate grass."

He also abused his might, breaking the traps of the hunters and frightening the peaceful shepherds on the plains of Erech. And so a hunter and herdsman of Erech complained to his aged father and sought advice. His father commands him to lure the wild giant by means of a beautiful harlot.

"He will behold her and draw nigh unto her.
His cattle will become estranged from him, they that grew up on his plains."

The hunter also consults Gilgamish, the king, telling him of the barbarian who came from the mountain afflicting the peaceful plains. Gilgamish gives the same advice, and so the hunter leads a voluptuous harlot a three days' journey to the hills to a watering place where Enkidu watered his flocks.

The plot succeeds. Enkidu becomes enamored of the harlot. For seven days he falls to the enticement of the woman who represents the lure of civilization. When he returns to his flock, they know him not and flee as from a stranger.

"He turned back and sat down at the feet of the harlot.
The hierodule looked upon his face.
And as the hierodule speaks his ears hear.
. . . as he spoke unto him even unto Enkidu.
'Thou art beautiful oh Enkidu, even as a god thou art.
Why with the cattle dost thou wander in the plains?
Come, I will conduct thee into the midst of Erech of the sheepfolds.
Unto the pure temple, dwelling place of Anu and Ishtar,
Where Gilgamish is perfect in strength,
And like a wild ox oppresses the people.' "

[1] A satyr, god of the flocks. The copy used for the text is that by Dr. Paul Haupt.

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Enkidu, abandoned by his flocks, agrees to enter the city with the woman. They arrive at Erech on a festive day. The harlot tells him of the beauty of Gilgamish as they walk toward Erech; she urges him to change his evil ways of life. Here she relates to him the dreams of Gilgamish in which he is forewarned concerning the advent of Enkidu, created to oppose him, but destined to become his companion in heroic adventure. We are now well into the latter part of the first book of the Assyrian version.

The new tablet in the Museum now runs as follows, beginning with the harlot's recital of the dreams of Gilgamish.

"Gilgamish arose, interpreting dreams and addressing his mother. 'My mother, during my night I, having become lusty, wandered about, in the midst of omens. And there came out stars in heaven. Like a . . . of heaven he fell upon me. I bore him, but he was too heavy for me. He bore a net but I was not able to bear it. I summoned the land to assemble unto him, that heroes might kiss his feet. He stood up before me and they stood over against me. I lifted him and carried him away unto thee.'

"The mother of Gilgamish, she that knows all things, said unto Gilgamish, 'Truly oh Gilgamish he is born like thee on the plain. The mountains have reared him. Thou shalt behold him and be distracted. Heroes kiss his feet. Thou shalt spare him. . . . Thou shalt lead him to me.'

"Again he dreamed and saw a second dream and reported it unto his mother. 'My mother, I have seen another dream. I beheld one like me in the street. In Erech of the wide places he hurled an axe, and they assembled about him. Like another axe seemed his visage. I saw him and was astounded. I loved him as a woman, falling upon him in embrace. I took him and made him my brother.'

"The mother of Gilgamish, she that knows all things, said unto Gilgamish: '. . .[1] that he may join with thee in endeavor.' So Gilgamish solved his dream. Enkidu sitting before the hierodule . . . forgot where he was born. Six days and seven nights came forth Enkidu and cohabited with the courtesan. The hierodule opened her mouth, speaking unto Enkidu. 'I behold thee Enkidu; like a god thou art. Why with the animals wanderest thou on the plain? Come, I will lead thee into the midst of Erech of the wide

[1] About one line broken away.

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places, even unto the pure temple, dwelling place of Anu. Oh Enkidu arise! I will conduct thee unto Eanna dwelling place of Anu, where Gilgamish [oppresses] the souls of men (?). And as I . . . thou shalt . . . thyself. Go up thou from the ground unto the place yonder(?) of the shepherd.'

"He heard her speak and accepted her words with favor. The counsel of the woman fell upon his heart. She tore off a garment and clothed him therein. With a second garment she clothed herself. She clasped his hand, guiding him like . . . into the mighty presence of the shepherd, unto the place of the . . . of the sheepfolds. In . . . to shepherd. . . .[1] Milk of the cattle he was drinking. Food they placed before him.[2] He break bread, gazing and looking. But Enkidu understood not. Bread to eat, beer to drink, he had not been taught. The hierodule opened her mouth and said unto Enkidu. 'Eat bread oh Enkidu, it is the conformity of life, the condition and the fate of the land.'

FIG. 9.—Enkidu and the Lion. After Ward.

"Enkidu ate bread until he was satiated. Beer he drank, seven *times* (??) His thoughts became unbounded and he shouted loudly. His heart became joyful and his face glowed. He stroked . . . the hair of his head(?). His body with oil he anointed. He became like a man. He attired himself with clothes even as does a husband. He seized his weapon, which overpowers the lion, which fells in the night cruelly. He captured the wild mountain goats. The panther he conquered. Among the great sheep for sacrifice Enkidu was their guard; he a man, a leader, a hero. Unto . . . he elevated. . . .[3] He made glad. He lifted up his eyes. He beheld the man and said unto the hierodule. 'Oh harlot, take away the man. Wherefore did he come to me? I would forget the memory of him.' The hierodule called unto the man, and came up to him regarding him. She sorrowed and was astonished how his ways were [*rude?*].

[1] About two lines broken away. Here Enkidu and the harlot behold Gilgamish at a distance.

[2] *i. e.*, Gilgamish.

[3] About five lines broken away.

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Lo, she opened her mouth, saying unto Enkidu, 'At home with a family [*to dwell?*] is the fate of men. Thou shouldest design boundaries(?) for a city. The trencher basket put upon thy head. . . . an abode of comfort. Unto the king of Erech of the wide places reveal, addressing thy speech as unto a husband. Unto Gilgamish king of Erech of the wide places reveal addressing thy speech as unto a husband. He cohabits with the wife decreed for him, even he formerly. But henceforth in the counsel which god has spoken, in work before his presence shall be his fate.' At the mention of the hero his face became pale . . .[1] going . . . and the harlot . . . after him. He entered into the midst of Erech of the wide places. The artisans gathered about him. And as he stood in the street of Erech of the wide places, the people assembled disputing round about him. 'How is he like become Gilgamish suddenly? In form he is shorter. In . . . he is made powerful. . . .' Milk of the cattle he drank. Continually in the midst of Erech weapons the heroes consecrated. A project was instituted. Unto the hero whose countenance was turned away, unto Gilgamish like a god he became a companion.

"For Išhara[2] a couch was laid. Gilgamish . . . in the night . . . in embrace. They (?) in the street halting at the . . . of Gilgamish. . . . mightily. A road . . . Gilgamish . . . in the plain . . . his hair growing thickly like corn. He came forth into . . . into his presence. They met in the wide park of the land. Enkidu held fast the door with his foot, and permitted not Gilgamish to enter. They grappled with each other goring like oxen. The threshold they destroyed. The wall they demolished. Gilgamish and Enkidu grappled with each other goring like oxen. The threshold they destroyed. The wall they demolished. Gilgamish bowed to the ground at his feet and his javelin reposed. He turned back his breast. After he had turned away his breast, Enkidu unto him spoke, even unto Gilgamish. 'Even as one distinguished did thy mother bear thee, she the wild cow of the cattle stalls, Nunsunna, whose head she has exalted more than a husband. Royal power over the people Enlil has decreed for thee.' "

This new section of the epic brings the original plan of the story in Book I to its *dénouement*. Enkidu and Gilgamish strive with

[1] About five lines broken away.

[2] One of the unmarried mother goddesses, originally patroness of canals and water animals.

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each other "that the land might repose." But a very interesting motif is worked into this book, the story of the conversion of Enkidu to the ways of civilized man, a conversion brought about by the love of woman. Gilgamish is at first shocked by the manners of the satyr, but the woman teaches him the customs of men. Even then Gilgamish cannot overcome his aversion for his newly learned manners, and orders him to be banished. Once more the faithful woman instructs him in the conventions of life. The people are enthusiastic about his heroic presence. Finally he and Gilgamish become reconciled. They dedicate their arms to an adventure.

Here a new motif is worked into the epic, the passion of Gilgamish for the divine Išhara. Apparently Enkidu intervenes to save his friend from effeminate influence for a violent conflict arises in which Enkidu strives to prevent Gilgamish from entering his house. Gilgamish is overcome and they are again reconciled.

Enkidu is sometimes represented on seals as a satyr, with hind legs and tail of a bull. Sometimes his headdress is also decorated with horns of a bull. On one of the seals which illustrate the conflict a nude woman stands beside the struggling heroes. It seems not unreasonable to suppose that this glyptic scene illustrates the effort of Enkidu to rescue his friend from the goddess. In fact the satyr stands between Gilgamish and Išhara on the seal. One of the unplaced fragments in the British Museum tells of Enkidu's own revolt against the effeminate influence of women and he curses the hierodule whose devotion had served him so effectively. And Shamash, the sun god, is astonished at his ingratitude.

"Why oh Enkidu cursest thou the harlot, her the hierodule,
Her that gave thee to eat food that would be acceptable to the gods?
Wine she gave thee to drink, seemly unto kings."

At the end of Tablet II the heroes proclaim their purpose of making an expedition to the far East where in the cedar forests dwells the terrible Humbaba, probably an ancient king of Elam, traditional foe of Sumer and Akkad. It is probable that Enkidu becomes the advocate of puritanic living in view of this warlike venture. At this point Gilgamish in a dream penetrates the mysteries of the life beyond the grave and Enkidu also sees in a dream the existence of those who dwell in the nether world.

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"He led me unto the house of darkness abode of Irkalla.[1]
Unto the house whence he that enters departs not.
Upon the road whose going returns not.
Unto the house whose occupant is deprived of light."

Thus in the early part of the epic the terror of death which forms the principal theme of the later part of the story is vividly portrayed.

Before the heroes depart for the conflict with Humbaba the goddess Ninsun laments their departure, weeping before the Sun-god.

"Why hast thou done so for Gilgamish my son, a restless heart placing within him.
Now thou hast touched him and he goes
Upon a far journey to the place of Humbaba."

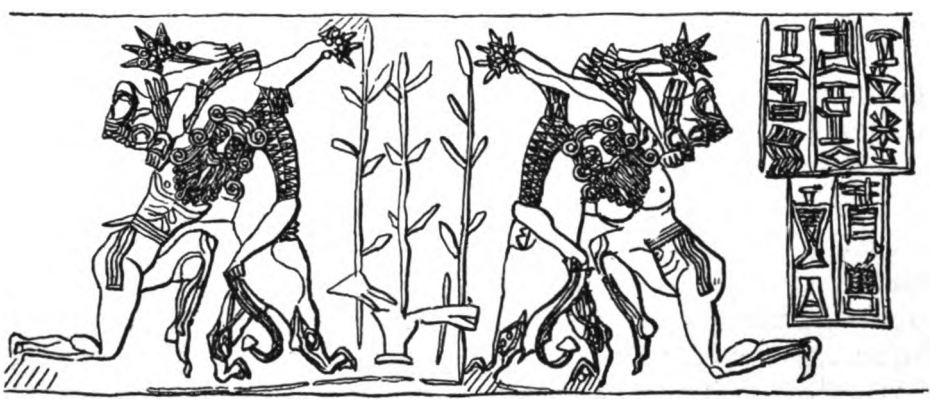

FIG. 10.—The Combat of Gilgamish and the Bull. From a Seal Cylinder. After Ward.

Tablet V in the British Museum relates the conflict with Humbaba and the death of their foe. After the battle the beautiful goddess Ishtar is captivated by the beauty of Gilgamish and desires him for her husband. But Gilgamish now like Enkidu has put away the sensual joys of life. He rejects her proposal and taunts her concerning her faithless career. Here follows the episode which most commonly figures upon seals from the earliest Sumerian and Semitic period. Ishtar enraged appeals to her father Anu, the heaven god, who creates a divine bull to slay the offensive Gilgamish. The seal cylinders depict this struggle with the bull sometimes representing Gilgamish in single combat, sometimes both heroes in combat with the bull, or more often as in the fine seal of the Sargonic period in our Museum Gilgamish in combat with the bull and Enkidu with

[1] Queen of the lower world.

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a lion. The latter motif is taken from Book II represented by our new tablet.

Such are the principal events and cultural ideas developed in the first six books of the Epic of Gilgamish or the poem "He who has seen all things." The remaining books tell of the death of Enkidu, the sorrow of Gilgamish and his search for the plant of life, whereby he might escape from the fate common to all men. The moral of the epic is that there is no escape and that the loss of Paradise which according to the well-known Sumerian epic was ended by the Flood brought about by the sins of mankind was an irretrievable disaster. Disease and death brought upon man by the survivor of the Flood because he had eaten of the "plant of fate" are forever the fate of all men.

FIG. 11.—Impression of a Seal Cylinder in the University Museum. Maxwell Sommerville Collection.

That portion of the poem that is written on the tablet in the Museum is important not only because it fills up a gap in the epic

FIG. 12.—Impression of a Seal Cylinder in the University Museum. Maxwell Sommerville Collection.

but because it reveals one of its principal minor motifs. Man redeemed from barbarism by the love and devotion of woman is the subject of this tablet. It enables us now to understand more clearly the later ideas which the poet includes in his finely conceived work.

S. L.

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A RITUAL OF ATONEMENT FOR A BABYLONIAN KING

IN Babylonian religion the rituals of the private confessional and atonement were characterized by mystic and magic ceremonies accompanied by prayers usually recited by the penitent. The world has inherited a large number of these private rituals and prayers, which often combine pure religious sentiment with a high degree of literary perfection. Dr. Myhrman has published one such tablet (No. 1519) in the Museum's collection. It contains a prayer of the ill-fated king of Babylon, Shamash-shum-ukin, the Sammuges of the Greeks, who ruled as suzerain of Asurbanipal, king of Assyria, from 668 to 647 B. C. No ritual is mentioned, but we know from the official directions, written for the guidance of the priests who directed the ceremonies of atonement, that these rituals were prescribed in such cases upon separate tablets.

The Museum possesses also a much larger tablet (No. 1203) originally containing at least one hundred lines, written for a private confessional of this same king, but of a more mystic character than No. 1519. It contains a ritual which continued for two days.

The name Shamash-shum-ukin is associated with one of the greatest of historical tragedies. Being the eldest son of Asarhaddon he failed to receive recognition from his father and the court advisers in Nineveh as successor to the throne of Assyria, probably because his mother was a Babylonian princess. In consequence his younger brother the famous Asurbanipal, the Sardanapalus of the Greeks, became king of Assyria and of the vast Assyrian empire, including all of Babylonia which had been conquered and reduced to an Assyrian dependency by Senecherib, father of Asarhaddon. Asurbanipal appointed his brother Shamash-shum-ukin to the ancient throne of Babylon, where he ruled for sixteen years as a loyal representative of sovereign Assyria. If the great southern kingdom had remained faithful to the Sargonic dynasty at Nineveh this powerful Semitic empire might have resisted the less civilized Persian hosts of Cyrus and the culture of the Assyro-Babylonian peoples might have endured far into the Christian era. In that event the history of the world would have been different. But yielding to the ever

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rebellious tendencies of Babylonian and Elamitic intriguers, Shamash-shum-ukin organized a vast rebellion in 652 B. C., involving all the discontented elements of the Assyrian empire. After five years of a horrible civil war, Babylon was captured and the unfortunate son of Asarhaddon perished in the flames.

The inscriptions of this king of Babylon are scant. The text published by Myhrman and the one to which attention is now first called are the only known documents written for the king's use in his private devotions. Both were purchased by the Museum in 1898. The prayer on tablet 1519 was copied into the prayer books of Assyria, where it was used by ordinary laymen with omission of the six lines which refer to Shamash-shum-ukin. Addressed to the sun god it appears to contain references to the civil war.

"The wide dwelling peoples, they the dark heads, sing of thy heroism.
The lonely man thou didst cause to have a comrade.
Unto the unfortunate man thou hast given an heir.
For those in bondage thou hast opened the bar of heaven.
For those that see not thou makest light.
The obscure tablet, the unrevealed thou readest.
On the sheep's liver thou causest oracles to be written.
Oh judge of the gods lord of the heaven spirits."

These lines serve as an excellent example of the kind of prayers employed in the Babylonian rituals of atonement and in their religion.

The large tablet 1203 illustrates a very different type of atonement. The service is accompanied by much magic and the long address of Shamash-shum-ukin to the fire god and the sun god is based almost entirely upon demonology and symbolic magic. The text illustrates how ineradicable these ancient beliefs in devils and magic are in every great religion. On the one hand, the king in this text addresses the sun god in a prayer of the most spiritual type for his sins, transgressions and political troubles. On the other hand, the same text is one of the best examples of atonement by symbolic magic.

To rightly understand the importance of this newly discovered tablet, a few details concerning the mystic rituals should be explained. The priests of magic who presided over all the rituals of private atonement possessed two long series of incantations in which the

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sinner was purged, healed and atoned by fire. These were known as the *Maḳlû* or "Burning" ritual and the *Shurpu* or "Fire" ritual. When these rituals were employed the penitent usually made images in tallow, dough, wood, etc., of the devils, witches and evil spirits which he supposed had obtained possession of his body. And as he burned these images in fire he recited curses against the demons. By sympathetic magic he thus supposed that the devils themselves were consumed in fire and driven from his body. The ritual written for the use of Shamash-shum-ukin is apparently based entirely upon the great Maḳlû series, and many lines of that well-known book of incantations are restored by means of the new text.

In his long address of over seventy lines the king complains in the following terms.

"They encompassed the earth at my feet, the measure of my form they measured.
Images of me, be it of tamarisk, cedar, tallow or honey, lo they made.
Images of me in a cavern in the west they concealed.
Images of me in a potter's oven they burned.
Images of me at the crossways they concealed.
Oh may the sun god break the sorcery of my sorcerer and sorceress, of my wizard and witch.
May (the fire god and the sun god) catch them at their evil doings and shatter them like an earthen jar.
May they die and I live.
May they quake and I stand fast.
May they be bound and I be freed.
By thy command, which is a thing divine, and changes not, and by thy true grace which alters not
I Shamash-shum-ukin, son of his god, thy servant would live and prosper.
Thy greatness I will extol, thy praise unto wide dwelling peoples I will sing.
Oh sun god exalt the magic curse which Nudimmud, counsellor of the gods, has made."

According to the ritualistic directions attached to this incantation the priest made fifteen images of fifteen devils from tallow, dough, clay, etc. and burned them on a censer, while the king recited his

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long list of grievances and petition to the fire and sun gods. Thus the Babylonians cast out devils. As the images of the demons melted in the flames of the fire god they themselves rushed from the body of the sinner as he prayed and left him pure and at peace with his god.

The famous legend of the seven devils current in antiquity was of Babylonian origin, and belief in these evil spirits who fought against the gods for the possession of the souls and bodies of men was widespread throughout the lands of the Mediterranean basin. Here is one of the best known descriptions of the seven demons; the text is imperfect.

"Of the seven the first is the south wind. . . .
The second is a dragon whose open mouth . . .
The third is a panther whose mouth spares not.
The fourth is a frightful python . . .
The fifth is a wrathful . . . who knows no turning back.
The sixth is an onrushing . . . who against god and king [attacks].
The seventh is a hurricane, an evil wind which [has no mercy].

The Babylonians were inconsistent in their description of the seven devils, describing them in various passages in different ways. In fact they actually conceived of a very large number of these demons and their visions of the other evil spirits are innumerable. According to the incantation of Shamash-shum-ukin fifteen evil spirits had come into his body and

"My god who walks at my side they drove away."

The reader has observed in a citation above that the king calls himself "the son of his god." We have here one of the most fundamental doctrines of Babylonian theology, borrowed originally from the religious beliefs of the Sumerians. For them man in his natural condition, at peace with the gods and in a state of atonement, is protected by a divine spirit whom they conceived of as dwelling in their bodies along with their souls or "the breath of life." In many ways the Egyptians held the same doctrine, in their belief concerning the *Ka* or the soul's double. According to the beliefs of the Sumerians and Babylonians these devils, evil spirits and all evil powers stand forever waiting to attach the divine genius with each

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man. By means of insinuating snares they entrap mankind in the meshes of their magic. They secure possession of his soul and body by leading him into sin, or bringing him into contact with tabooed things, or by overcoming his divine protector with sympathetic magic, which Shamash-shum-ukin complains about in the tablet. These adversaries of humanity thus expel a man's god, or genius and occupy his body. These rituals of atonement have as their primary object the ejection of the demons and the restoration of the divine protector. Many of the prayers end with the petition, "Into the kind hands of his god and goddess restore him."

Representations of the seven devils are somewhat rare. The University Museum possesses one of the three known figurines which represent a demon of the wind. It has, like the wind demon of the Louvre and that of the British Museum, four wings extending from the back shoulder blades. The British Museum figurine represents the demon of the winds with body of a dog, scorpion tail, bird legs and feet. Its upper limbs, those of a dog, are represented in the same attitude as in the figurine in this Museum. The head, however, is a mythical composition, half human, half dog, with savage aspect, huge grinning mouth, flat nose and wide ears. The Louvre demon has the same bird legs and claws, the same four wings but the lean gaunt body is human, and so are the hands, represented in the same attitude, the right raised to attack the soul of man and the left held hanging tensely, ready to hold its prey. The head of the Louvre demon has the horrible aspect of a mad creature, half dog, half human, with snarled mouth showing two long canine teeth. The figurine in the University Museum resembles closely that of the British Museum and probably represents the demon of the south wind, the spirit of the hurricanes which blew across Mesopotamia from the Persian Gulf and the Indian Ocean. The upraised right paw and the awaiting left paw are clearly those of a dog, and the lower limbs terminate in heavy bird claws. As to the lower limbs themselves, there does not seem to be any indication of feathers, but one expects more aviative characteristics in a figure which represents the wind and we may

FIG. 13.—A Babylonian Winged Devil.

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suppose that the oxidation has obscured their birdlike character. The body is apparently that of a dog and it has a scorpion tail similar to the figure of the British Museum. The head, however, resembles the horrible menacing composition of the Louvre demon.

On the head of each of these three known figures of the wind demons is attached a small pierced disk. The owner probably passed a string through this aperture and hung the figure in his house as a charm against the demons. Nevertheless each is posed upon a small platform which enabled the figure to stand wherever it was placed.

S. L.

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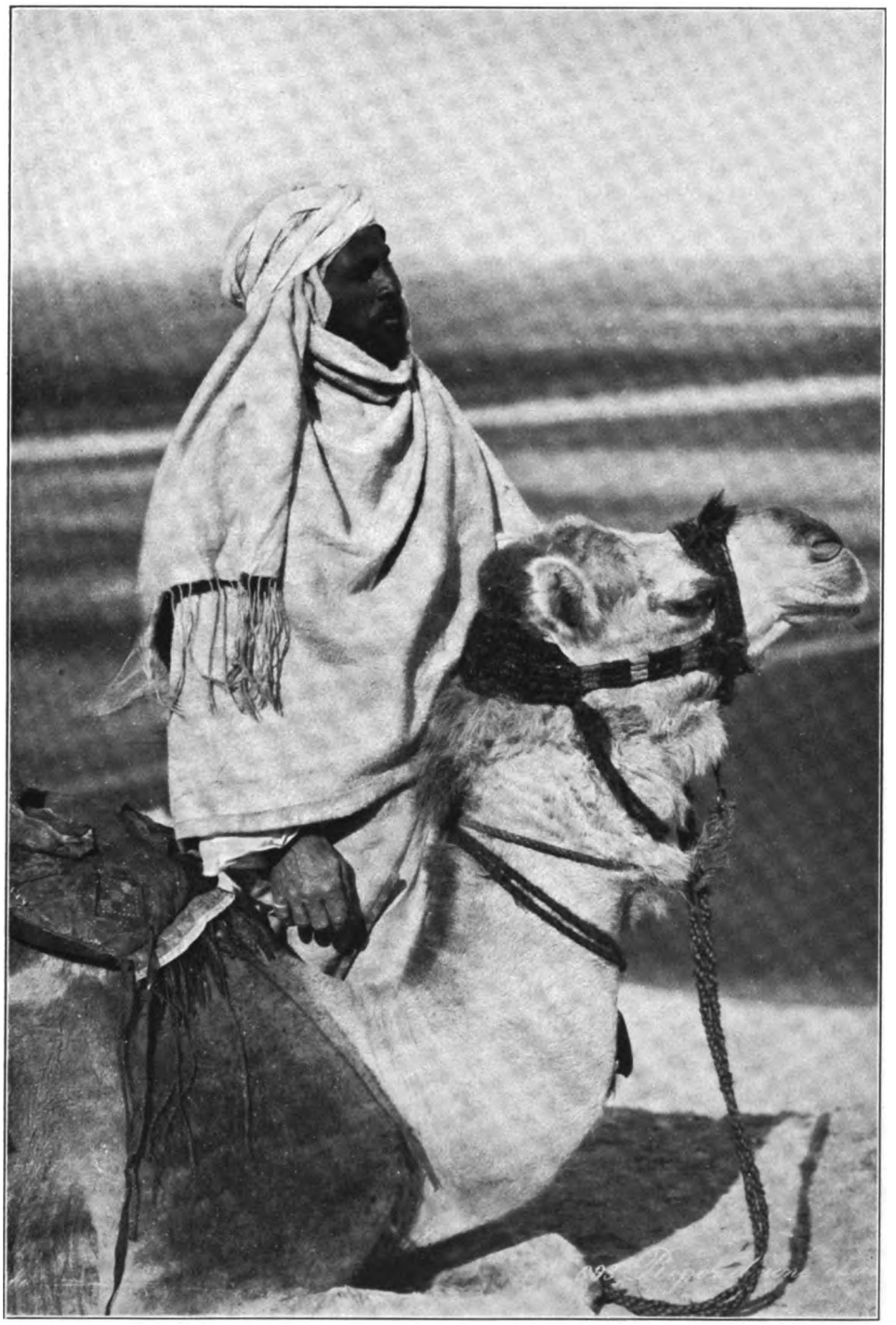

EGYPT.
The Eckley B. Coxe, Jr., Expedition.

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EXCAVATIONS AT GIZEH

THE ECKLEY B. COXE, JR., EXPEDITION TO EGYPT

THE Royal Cemetery of Gizeh occupies many acres of the high plateau behind the Great Pyramid, and its clearance has been nearly completed by the various expeditions among which it has been divided.

That part of the cemetery excavated by the Eckley B. Coxe, Jr., Expedition of the University Museum was a part of that section previously assigned to the Harvard Boston Museum Expedition, lying along the extreme northwest edge and enclosed on the east, south and west by mastabas of the Cheops period. These were arranged in parallel rows and were obviously built on regular plots of ground assigned by the king to his chief officials. The area which we excavated contained tombs of priests and minor officials. The regularity of the more important cemetery was lacking and it was clear from the overlapping and rebuilding of many of the tombs that the area had been used over a long period.

The sepulchral portions of the tombs were the common type of the period. All the shafts were carried down to a depth of two to six meters into the rock, and it is interesting to note that this was done after part at least of the superstructure of the mastaba itself had been completed. At the bottom of each shaft was a small rock chamber, sometimes scarcely more than a recess. This usually opened from the west side, but in our cemetery this rule was adhered to only when the position of a shaft or chamber of a neighboring tomb did not interfere. In the older tombs which we cleared the burial itself was in a shallow pit sunk in the floor of the chamber. In this cavity was placed the body, sometimes enclosed in a plain wooden coffin, and the pit was then covered with rough slabs of stone. Many tombs had been disturbed by grave robbers, but even those which had remained intact contained, with a few exceptions, no pottery or other funerary objects. Nearly all the pottery found came from the débris either in the shafts or in the offering chambers.

One of the most important mastabas was found near the south-east corner of the area. It had a rubble core, with shafts and exterior walls faced with mud bricks. An offering chamber was built against

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the east façade, which contained a series of niches. Against the two southern niches had later been erected a limestone niche (false door) and a relief. The relief is a portrait of the owner, a certain Medady, who is described as "acquaintance of the king, companion of the commander of the army." The niche stele was more interesting. In the upper panel (Fig. 15) is a low relief representing a woman seated in the usual manner before a table of offerings; above is her name and position, "Concubine of . . . (?), priestess of Wep-wat, Kha-khenmet." Across the lintel is a list of offerings, including wine, figs, etc. Below on the pseudo-log lintel her name appears again, "Kha-khenmet." In the niche itself the woman is standing, with the inscription, "Kha-khenmet, priestess of Hathor, the Mistress of the Sycamore (i. e., Hathor of the Pyramids)." In the left panel she appears again with the inscription, "Acquaintance of the king, revered before the great god, his (i. e., Medady's) beloved wife Kha-khenmet." In the right panel is Medady himself with practically the same inscription as that on his own portrait stele. The tomb therefore belonged to a minor official and his wife or concubine. These two terms are here used interchangeably, and we know from other inscriptions of the same character that this relationship was not uncommon and that the position of concubine, a sort of second wife, carried no stigma.

In a small space between the offering room of the Medady mastaba and one of the large Cheops mastabas east of it, a beautiful little statuette was found (Fig. 16). This portrait statuette is perfectly preserved and still has the coloring in fresh condition. The skin is painted red, the wig and eyes black; the skirt and collar have lost part of their original yellow color. On the base is inscribed, "Overseer of boats (?), Mesty."

Near the north end of the cemetery were two small mastabas belonging to a priest Ruwz and his relatives. The two tombs did not adjoin one another. That of Ruwz and his wife was built against the north side of a fine stone cased mastaba, while that of his father and mother lay to the southwest, separated by a space from that of Ruwz himself. Both tombs were of mud brick construction throughout, and that of the parents had the offering chamber arched with mud bricks on which reeded decoration was worked in mud plaster. In the rooms were three niches and on the floor were three offering basins of limestone. The first bore the following inscription around its rim: "May the king and Anubis,

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FIG. 14.—Plowing near the Pyramids. The Eckley B. Coxe, Jr., Expedition to Egypt.

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first in the temple, give an offering. May there be buried in the westland in a great old age the lord revered before the great god, the purifying priest of the king's mother, the judge over the bank, the judge of the 'son of the house' (meaning unknown), the revered before his mistress, Ruwz." This is a libation basin which Ruwz placed in the tomb of his parents. The second basin is inscribed: "May the king and Anubis give an offering. May there be buried in the western desert in a good old age ('the revered' omitted) before the great god, the acquaintance of the king, Per-senet. This was made for the mistress of reverence before the (great) god by the son of her body, the purifying priest, Ruwz." This slab therefore was dedicated by Ruwz for his mother. The third basin is that of the father: "May Anubis, the foremost in the underworld, give an offering (for) him who is buried (in) the western desert, the lord of reverence, the gate porter, Iy-mery." Near one wall of the chamber stood a large pottery stand inscribed: "Overseer of purifying priests, Iy-mery."

FIG. 15.—Stela from the tomb of Medady in the Pyramid Field. Eckley B. Coxe, Jr., Expedition to Egypt.

Turning now to the tomb of Ruwz and his wife we have first in an anteroom at the northern end of the offering chamber a small red granite slab with the inscription: "Purifying priest of the king's mother, Ruwz; his wife Mesat; (funerary offerings) houses, loaves, beer, cakes, fowl, cattle." Behind this in a small space roofed with

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stone slabs was a fine limestone offering basin inscribed: "His beloved wife Mesat, the acquaintance of the king, Mesat; libation priest of the king's mother, Ruwz; judge over the bank, Ruwz." The latter title is known to be an official title from other inscriptions, but its meaning is obscure, possibly it refers to duties connected with irrigation, ferrying or shipping. In the main chamber before the central niche was the important offering table of Ruwz and his wife (Fig. 17). This had a long inscription covering all four sides of its double ledged rim. It runs: "Acquaintance of the king, priest of Cheops, priest of Chephren, purifying priest of the king's mother, beloved of his lord (i. e., the king), whom his lord loves every day, priest of Dedefra, revered before the great god. May the king give an offering, a thousand loaves of bread, a thousand jugs of beer, a thousand pieces of linen, a thousand garments, a thousand of all good things daily (for) the judge over the bank (canal ?), the companion of the son of the houses, the acquaintance of the king, Ruwz, (and for) his wife, the acquaintance of the king, Mesat."

FIG. 16.—Statuette found at Gizeh. Eckley B. Coxe, Jr., Expedition to Egypt.

The importance of this inscription lies in the fact that it contains the cartouches of three kings of the fourth dynasty, Cheops, Chephren and Dedefra. The latter is usually placed between Cheops and Chephren, but the order here would seem to indicate that he really followed Chephren. Only four other examples of this cartouche are as yet known. The position of purifying or libation priest to the Queen mother was an important one, corresponding to a father confessor. In addition to the obscure title of "judge over the bank" which occurred in his other inscription, we have here another one, "the companion of the son of the houses." This also is a known title of which the meaning is obscure. This group of inscriptions is of considerable interest. It is quite evident that both mastabas and libation basins were the gift of Ruwz. We see that he had a very humble origin as his father was only a gate

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keeper who married a woman who had some influence with the king. Through this, it would appear, her son Ruwz prospered until he finally obtained the important post of libation priest to the king's mother. He also married a court lady, and with his accumulated means built for his parents as well as for himself and his wife their final resting places. If the inscription on the jar stand found in Iy-mery's tomb refers to the father of Ruwz, it would appear that Ruwz also used his influence to raise his father from a gate-keeper to an overseer of the libation priests.

FIG. 17.—Offering Table of Ruwz and his wife, found at Gizeh. Eckley B. Coxe, Jr., Expedition to Egypt.

An interesting stele came from a small mud brick mastaba in the middle of the area. It belonged to Khufu-mer-neteru, "commander of ten (ships?)." Another stele broken in several pieces came from the extreme western limit of our cemetery. It belonged to the funerary priest Ankh, and was dedicated to himself, his concubine Ked-nofret and his two daughters Khent-ka and Ked-nofret.

In the space between the two Ruwz mastabas was a rough stele and offering basin belonging to a woman. After the usual formulæ

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the inscription on the stele ends, ". . . the acquaintance of the king, Nofer-hotep-es-wer. The son of the king, of his body, Duwa-ra. His daughter, the acquaintance of the king, Nofer-hotep-es." The two names here are the same, but in one case the hieroglyph "wer" (i. e., "the elder") is added, probably to distinguish her from a daughter or sister of the same name. She is called the daughter of Duwa-ra, who is a prince of the royal house. This Duwa-ra may be the same as the prince Duwa-ra of the mastaba found by Dr. Reisner in the main cemetery.

At the northern end of the area was a large mud brick mastaba with the exterior walls and the offering chamber faced with dressed masonry. Most of the exterior facing had been removed later, but the offering chamber remained practically in its entirety. It was lined with limestone covered with stucco, on which were drawn in red numerous offering scenes. The tomb belonged to Sneferu-hotep and his wife Khennût-nist-em-yenty. Sneferu-hotep is not given any title except the usual "acquaintance of the king," but his wife was a priestess of Hathor, of Neith and of Wep-wat.

Other minor tombs were those of Nofer, chief of the silver treasury, and Nofret, wife (?) of Thenty. Near the western side was the mastaba of the funerary priest Sobef. The roof of the offering chamber was vaulted with mud bricks designed so as to interlock. These are, so far as I am aware, the only examples of interlocking bricks yet found in Egypt, and the oldest examples of such technical skill.

C. S. F.

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FIG. 18.—A group carved in wood. Yoruba tribes, West Africa..

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SOME GODS OF THE YORUBA

THE Yoruba tribes of the hinterland of Lagos in the Western Province of Southern Nigeria were formerly united in a powerful state under an Alafin or King who had his capital at Old Oyo. The Yoruba kingdom was at the height of its power about the end of the seventeenth century, though even as late as 1818 the Dahomi were paying tribute to the Alafin of Oyo. In its palmiest days the kingdom laid all its neighbors, including the Hausa, under tribute.

Pressure of the Mohammedan tribes from without, aided by internal dissensions, destroyed the unity of the kingdom. During the last two-thirds of the nineteenth century it became a congeries of mutually hostile petty states, pacification of which was only accomplished when the greater part of Yoruba land became a dependency of Great Britain about a quarter of a century ago.

The influence of Islam, exerted upon the Yorubans for many generations, seems to have made itself felt much less in their religious than in their civil life. A Yoruba legend relates the coming of a Hausa Mussulman to Ife, their holy city, to preach Allah to the people, and Islamic cults have perhaps to some extent modified certain of their religious beliefs. Yet they have remained essentially pagan. Frobenius (1907) speaks of a "ritual murder" having taken place during his visit to Ibadan almost under the eyes of the Resident and, so to speak, between church days. But Yoruba land was never drenched with the blood of human victims as were Dahomey or Benin, so far as we know from any historical records. The people of Ibadan, indeed, were so averse from this form of ceremonial cruelty, that upon an occasion when the immolation of a slave was considered indispensable they used to pay the priests of Ife to perform the sacrifice vicariously in the latter town.

The high gods of the Yoruba are called *orisha*, the deified deceased. Every Yoruba is descended from an orisha with whom his connection is so intimate that he considers himself at once a portion and a representative of the god—a portion, in that, dying, he returns to the orisha, and a representative, since every newborn child is a reincarnation of some deceased member of the family

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FIG. 20.—Side view of the statue shown in Fig. 19.

FIG. 21.—Back view of the statue shown in Fig. 19.

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FIG. 19.—A painted wooden statue. Yoruba tribes, West Africa.

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claiming descent from that orisha. Each orisha is thus the head of a clan, and since his descendants may not marry among themselves, a man must take his wife from among the descendants of another orisha, that is, from a clan not his own.

The highest—also the most remote—of the gods is Olorun. He is a vaguely conceived god of the sky, whom no one worships nor heeds. Why should they, since he himself takes no heed of men's affairs? The other gods are nearer to men, forefathers of the people, controlling forces useful to their posterity, whom therefore these have it at heart to placate by offerings, and to honor by worship. Such are Obatala, whom Olorun begot, and to whom he has handed over the management of the firmament and the earth; Shango, the thunder-god; Ogun, god of iron; Shankpanna, the small-pox god; Edshu, god of strife and bringer of the Ifa oracle to men.

Among all the gods only Edshu and Shango are commonly represented in the form of images. Most of the carved and painted figures of men and women of Yoruba workmanship are simply representations of priests or other persons who bring offerings to the orisha, or of the dead who are being commemorated at burial feasts.

Of three such figures in the possession of the University Museum, one, the mounted figure shown in Fig. 18, may be an image of Obatala, who, in his character of "Protector of the Town Gates," is represented as mounted on a horse and armed with a spear. Or it may represent one of the founders of the Yoruba kingdom, who also appear in similar state in the temple of the Ifa oracle. Or it is, perhaps, some other great chief who has more lately returned to his orisha. His great size, by comparison with that of his attendants (two of whom are men-at-arms, and the other two bearers, presumably, of booty taken in war) is in itself an indication of rank.

Figures like this, or like others in the collection, bearing on their heads open wooden bowls, form part of the accessories in the Ifa ritual. Ifa is usually called a god, though it is possible that the term properly denotes rather a cult connected with an oracle, and that myths and legends in which he is represented as a are god late accretions. There are certain facts which seem to point to the latter conclusion. No Yoruba claims descent from Ifa; consequently the word, which is variously said to mean "palm kernel," "something

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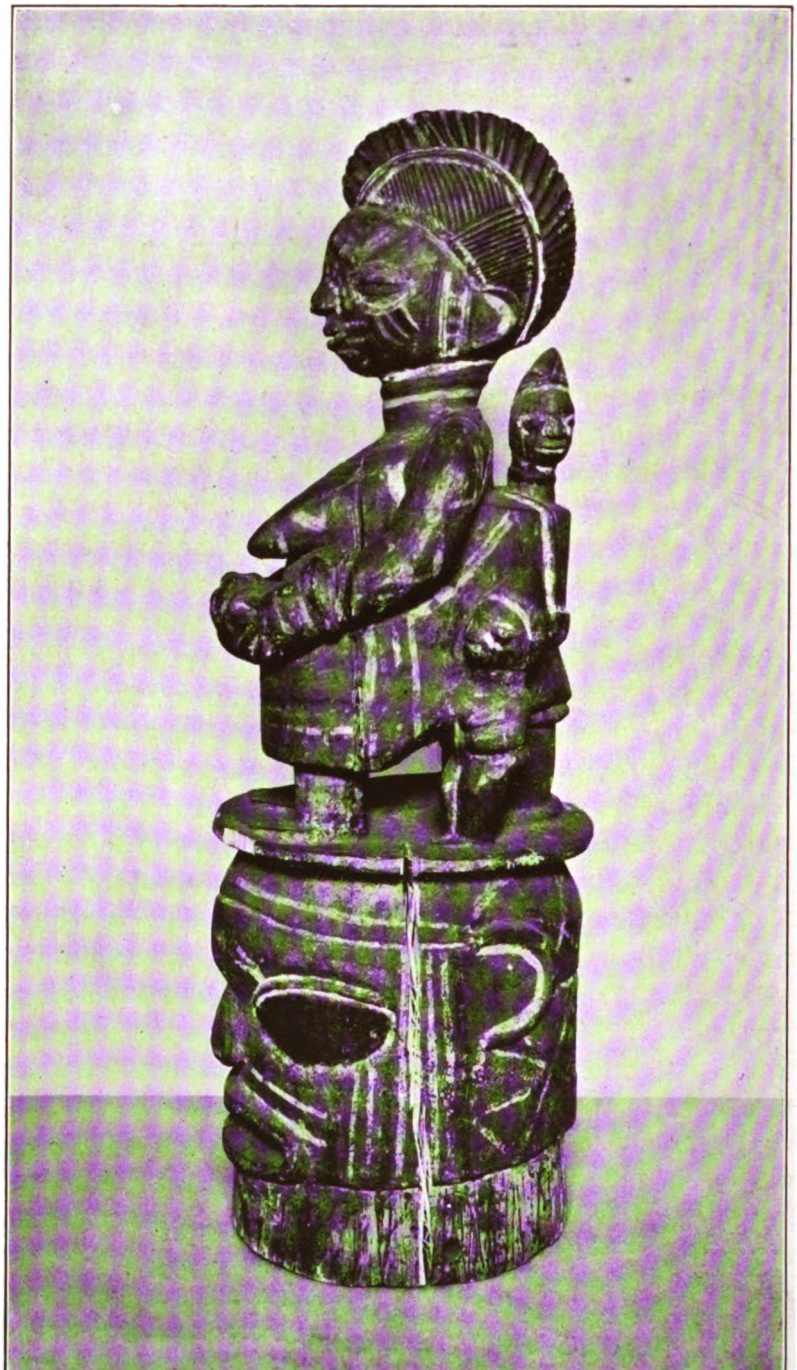

FIG. 22.—A painted wooden statue of a woman with four children, Yoruba tribes, West Africa.

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scraped off" or "created," is not the name of an orisha as is the case with Obatala, Shango, and the other chief gods of the Yoruba. The ceremonies connected with the consultation of the oracle do not seem to imply the worship of a deity; and the carved figures which adorn the boards, etc., used on these occasions are representations of the orisha Edshu, who brought the oracle to men in the form of sixteen sacred palm nuts which he received from the monkeys in a palm grove. It had become necessary, it seems, to revive the flagging interest in things divine among men, for the orisha went hungry since men had ceased to sacrifice to them. So the gods, not scorning the counsel of apes, sent Edshu with the oracle to their lukewarm votaries.

In consulting the oracle the priests of Ifa employ a whitened board. The sixteen kernels are held in the right hand of the priest who acts as diviner, and allowed to drop between his fingers into the palm of the left hand. If, in this process, one nut remains in the right hand two strokes are drawn on the board; if two nuts remain, one stroke is made. This is repeated until in this manner have been produced the sixteen *odu*, or sacred marks, by observing the disposition of which the diviner reads the oracle. A very similar mode of divination has been reported from northern Africa, and the Ifa oracle, in its present form, is almost certainly derived from the Mohammedans.

Since the three painted wooden figures, or rather groups, pictured here all stand on hollow wooden pedestals representing either single or double human heads with holes cut through at the mouths, their use as masks is indicated, and consequently a possible connection with the cult of Egun or Egungun.

Before the burial of a corpse, the shroud which has covered it during the time it has been kept in the house is removed. A wooden mask is prepared, which represents, realistically or symbolically, the deceased. This mask is assumed by a dancer, who puts on also the dead man's shroud. He dances before the bereaved relatives, speaks to them in a shrill, high voice, condoling with them, and discussing matters in which the dead man was interested in common with them. Offerings may afterwards be made to the mask, and it is believed that these are received by the deceased.

"To prove to the women folk that man rises and goes to heaven, a person is placed in a private room. Then when all the family is assembled in an adjoining room someone will strike the ground three

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times with a stick, crying out, 'Father! Father! Father! Answer me.' And the Egun, the person in the room, answers, and everyone rejoices. Food has been placed in the Egun's room by the women, and when the Egun has answered, each guest goes in there and helps himself as he or she wishes. The Egun is not dressed up when in this room, but if he wishes to go outside and join in the dancing, then he dresses himself and puts on his mask."

From being regarded originally as merely the incarnation of the dead, Egun has in some places developed into a kind of bogey whose function is to carry away persons who are a nuisance to their neighbors—termagants, busybodies, scandalmongers. In his public character, at any rate, his touch is fatal. To threaten an Egun with personal violence, or for a woman to speak disparagingly of him, is punishable with death.

A smaller and lighter mask consists of a head supporting a group of animal forms—a tortoise, its forelegs gripped by the beaks of two scavenger birds, and a serpent. The whole is surmounted by a covered bowl, which suggests that this object may have been used as a "fetish" or rather a "fetish" container. Snakes play an important part in the religion of most West African peoples, and birds and tortoises are objects of reverence, if not of worship. The tortoise (like the spider of West Coast myth) stands for wisdom and cunning, for special efficiency in the struggle for existence, a reputation probably due to the immunity afforded by its tough carapace from the attacks of the many foes which lie in wait for the other small creatures of the jungle. But this is not the reason assigned on the Slave Coast for the success which attends the tortoise in all his undertakings: it is a reward for a good deed cleverly performed.

The daughter of a king was deaf and dumb. The tortoise went to the king and asked what reward he would receive if he succeeded in making the girl speak. "I will divide my palace in two and give you one part," said the king.

The tortoise took a bottle of honey and went into the wood where the child dwelt, placed the bottle where she would see it, and went and hid himself. As the child came up to take the bottle, the tortoise crept up behind and struck her a light blow. "Thief!" he cried; "that's how you steal honey!" Apparently the shock of discovery restored the princess's powers of hearing and speech, for she immediately burst out into indignant protests. The tortoise

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fastened a rope round her waist, and led her back to the palace, taunting her as they went, so that she continued to return angry and voluble rejoinders until they came into the presence of the king, who was thus assured of her complete recovery. He divided his palace into two parts and gave one to the tortoise.

That is why the tortoise succeeds in everything he undertakes.

H. U. H.

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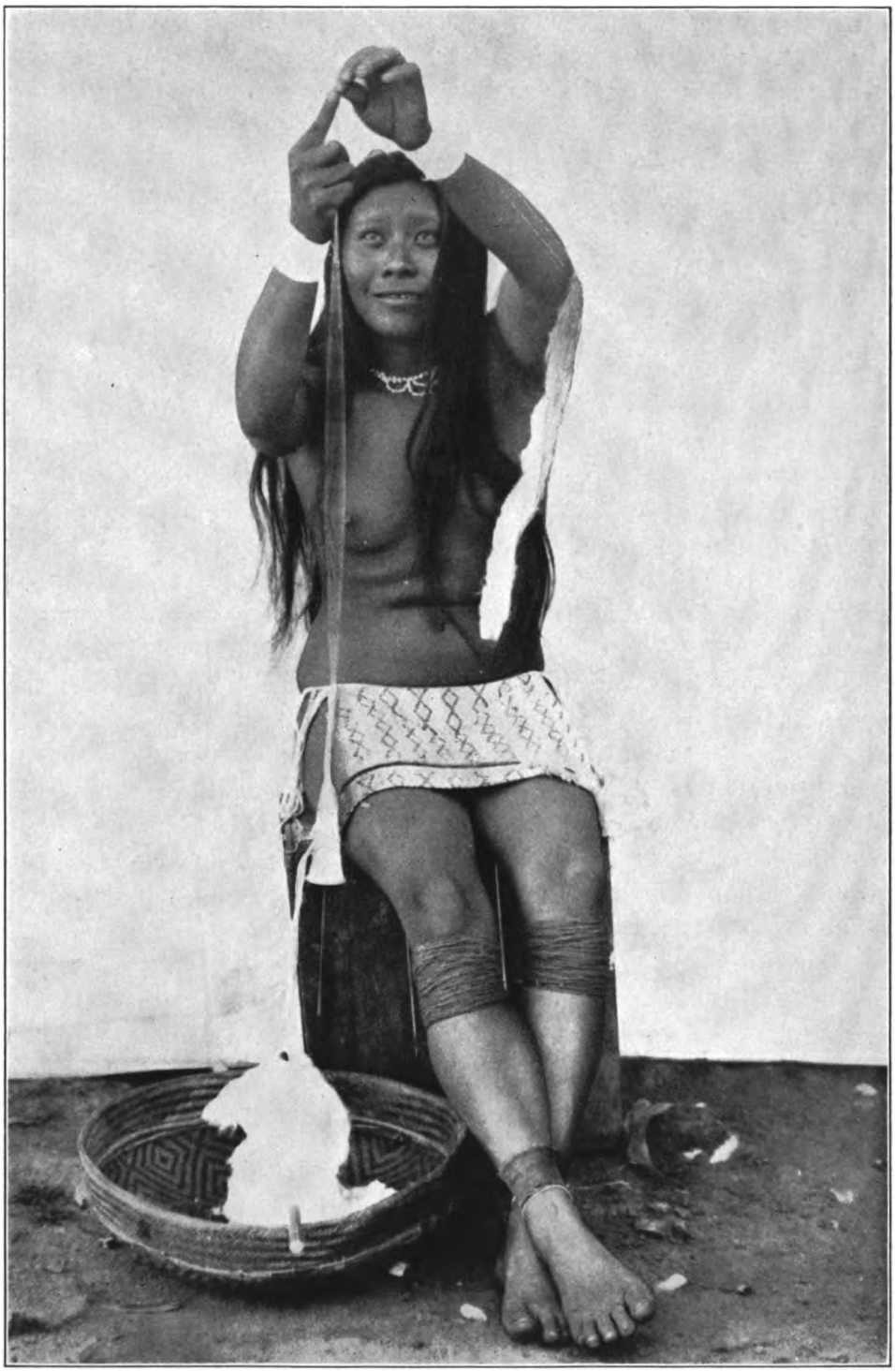

FIG. 23.—Wapisiana woman spinning cotton, British Guiana.

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THE AMAZON EXPEDITION OF THE UNIVERSITY MUSEUM

To the Head Waters of the Amazon

AFTER returning from the Guianas, we made a journey of 2,200 miles up the Amazon River in an English ship to Iquitos, Peru. The first night after leaving Para, while threading our way among the numerous islands, we ran aground on a sandbar and were unable to get off. A larger ship belonging to the same company went by but could not come near enough to assist us. There was no danger whatever as we were out of the current and had only to wait for the returning tide to carry us over. The islands are often very large and one does not realize that the ship is not running along the mainland. To avoid the current, which runs at about four miles an hour, the ship always remains near the land on one side or the other. If one takes the trouble to climb the mast and look over the tree tops he will more than likely see beyond the narrow island another branch of the river as large as the one he is traveling. There may be three or four branches each of which is several miles across. The lower river is like a great funnel a hundred miles across which narrows to the neck at Obidos five hundred miles up where it is less than a mile and a half in width. Here all the water is confined to one channel which is said to be two hundred and fifty feet deep.

The tide is felt about four hundred miles, and the water actually flows up stream for two hundred miles. The side streams also feel the tides for a long distance. Even where the Amazon rises but continues to flow it dams up the other rivers and causes an upstream flow. For example: we were traveling by canoe up the Amazon on the north side of the river when the tide was in, but the water was still running out. When we reached the mouth of the Jary' we were paddling against a strong current, but when we turned into the Jary' we floated for several miles up stream. The sea water does not go far inland, yet with a strong wind at high tide we found the water too salt for making coffee at a distance of seventy-five miles from the sea.

The land along the tide part of the river is too low to be used

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for agricultural purposes, hence there is no cleared land. The rubber gatherers live in small houses on stilts and make no clearings. One traveling along the river for the first time has a feeling that the people have just arrived and have had no time to make fields. But it is just as it has been for a century and just as it will remain for another one. About three hundred miles up river you get the first view of a range of low mountains through which the river appears to have cut its way. Many of the mountains are covered with grass and support hundreds of cattle and horses. Around the foothills there is much cleared land where cassava, sugar cane, corn, bananas, etc., grow luxuriantly. When this high land is passed there is nothing to break the monotony of the broad flat expanse until the snowcapped Andes appear in the far distance. There are slight elevations at many places which give a location for small villages and fields.

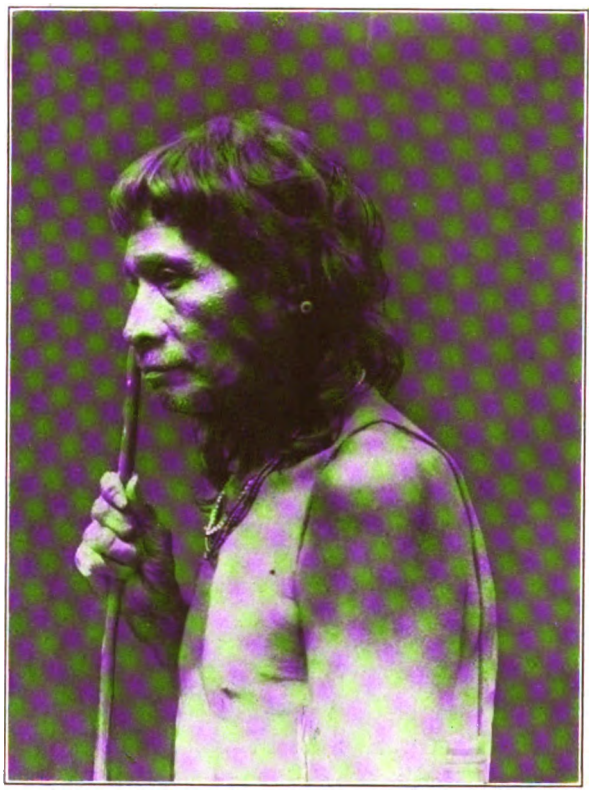

FIG. 24.—Mapidian Chief, North Brazil.

Our first stop was at Manâos, nearly a thousand miles from the sea, where we spent a day and took on several passengers for Tabatinga, at the boundary of Brazil, and for Iquitos. Among them was a Peruvian government official, who had been sent three months before from Lima to take his post at Iquitos. He had gone up the coast to Panama, then to Barbados, and from there to Manâos. After spending seventeen days more he reached his station eight hundred miles from the Capitol.

Manâos, a thriving city of 80,000 inhabitants, is on the north bank of the Negro a few miles from the Amazon. The water of the

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FIG. 25.—Mapidian mother and child, North Brazil.

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Negro is very dark, while that of the Amazon is yellow. Where their waters come together a distinct line is seen for some distance, but gradually the Amazon color predominates. And so all the way to the sea: the Trombetas, the Madeira, the Tapajos, the Xingu, the Tocantins, the Paru′, the Jary′ and numerous smaller rivers bring their clear waters to the Amazon only to be swallowed up without noticeably changing the original yellow of the great stream. The Amazon is never clear, not even in the dry season. It is difficult to appreciate the great volume of water carried by the Amazon during the rainy season. The flood plain extends for many miles on both sides of the river, yet it rises some fifty feet at Manâos and forty feet at Iquitos. Lower down where it meets the tide the rise is not so great. At Para, the difference between high water with incoming tide and low water with outgoing tide is about fifteen feet.

Besides carrying sediment the river carries great quantities of logs and trees out to sea. The trees that fall into the upper rivers are soon broken and stripped of their branches. They collect in eddies and are piled high with other driftwood on the sandbars. Great cedar logs thus piled up and cured were used by the Indians in making their canoes. Often whole trees with other drift get out into the current and are carried down like a great island. One night our ship ran into such a floating island and was compelled to back away to get free from it. Damage is often done to the propeller in this way. The heavy hardwoods will not float and they may be seen at low water lining the banks where they fell. The small launches have much trouble in the shallow streams on account of running on top of these logs. It is much more difficult to get free from a log than from a sandbar.

As we were ascending the river in the dry season it was necessary to take great precaution. The channel is constantly shifting. Where a ship passed in safety last year, a large canoe may not be able to pass this year. The native pilots are experts in determining the depth of the water from the appearance of the current. The greatest danger is near the mouth of a large tributary. The cross currents which are interfered with also by numerous islands cause deposits in unexpected places. Before we reached the Brazilian boundary we were having so much difficulty in locating the channel that it became necessary to tie to a tree at night and run only in the day time. This gave us an opportunity to go fishing. At

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the Peruvian frontier we were met by the Booth Company's tug-boat which ran ahead and located the channel for us.

A short distance below Iquitos we met the English consul in a motor boat, coming to notify us that war had been declared in Europe the day before. When we arrived at the city we found considerable excitement. The two banks, one English and the other Peruvian, were closed but all the drinking places were doing a good credit business. Everybody talked war. Some Frenchmen and Englishmen took the first opportunity to go home and volunteer

FIG. 26.—Remate de Males, Brazil and Nazareth, Peru—Rio Javary'.

for service. Several Germans took passage on a launch belonging to one of their number and went down to Manâos, where they learned that it was impossible to get home, so they returned after a short visit.

As we had no money and there was no possible way of getting any we were unable to go to the hotel. The Booth agents took care of us until we could get away some weeks later.

At such a time one appreciates friends and the credit system which is the common method of doing business throughout the rubber region. We had expected to spend several months in study

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and collecting among the different tribes of Peruvian Indians, but that now seemed impossible. I had been in Iquitos eight years before and had made a two weeks trip with the manager of the

FIG. 27.—Yahua men in grass clothing, Pebas, Peru.

Barnard Rubber Company on one of their launches up the Ucayali River. Fortunately this same man was in charge of the business again after a long vacation in Europe. I called and related my

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difficulties. He said, without any hesitation or questions, "That is easy, within a few days I must go to Cumaria (the head of navigation on the Ucayali) to collect rubber, I will furnish you passage and all the goods you need for trading with the Indians and allow you to pay when you can." I availed myself of his very generous offer and spent some six weeks with him on the journey. He did even more than he had said he would do. He stopped at every Indian village and every place we could hear of a specimen. He often went with me in a motor boat up small streams while the launch loaded or waited below. We made over two hundred calls on the round trip and collected specimens from the Campas, Cashibos, Conebos, Piros and Shipibos. The large collection of Conebo pottery is unique and one of the best of the whole expedition. The Conebos make the finest pottery of all the tribes and their wares are found among many other tribes as well as in the homes of the whites living along the river. In the collection are "chichi" pots, for native drinks, three feet high and four feet across the body.[1] These were carried suspended from poles on the shoulders of men to the river, there they were placed in canoes and taken to the river launch which carried them to Iquitos, where they were packed and sent direct to New York by a Booth steamship. A part of the collection was presented to the Goeldi Museum at Para upon our return.

At Cumaria, the last station up river, we met many canoes from farther up stream and from the side streams, bringing rubber to the launch. Here we found some most incongruous combinations of primitive with modern methods of navigation. For example, we saw a dugout canoe fitted with an Evinrude gasoline motor and used by a Conebo Indian to bring rubber from the small rivers to the station.

As it was impossible to learn anything about money affairs up river, it was necessary to make such a rapid journey that no time could be given to ethnological study. After an absence of six weeks we returned to find no improvement in the financial situation and it was, therefore, necessary to return to Para. There was not a cent in circulation. To make matters worse, freight rates were doubled at once and exporters could not afford to ship their rubber, or vegetable ivory nuts, the two important exports. The monthly service of foreign ships was reduced to one ship in three months

[1] For method of manufacture and use, see Vol. VI, No. 2, of the MUSEUM JOURNAL.

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and when it came it could not carry the food stuffs required for the people. As a result, many were compelled to leave the city and go to the upriver plantations, leaving their unpaid bills behind.

With such a state of affairs it was impossible for us to continue our work, so we started down river, stopping on the way to visit the Yahua Indians. We made a good collection there, and paid for the goods we used in exchange several months later. Although this tribe has been in constant contact with civilization for two hundred and fifty years, and during most of that period has had a mission station, the members of the tribe speak their own language only, dress in grass, and practice their ancient customs and religion. As no one at the mission spoke the Yahua language, we were unable to learn much of their customs or beliefs. Only a remnant remains of the large group that once made up this tribe. It is the same old story, such contact with civilized men serves only to destroy primitive peoples. In a few more years they will have disappeared.

FIG. 28.—Yahua man, Pebas, Peru.

In addition to the ethnological collections, we sent also from Peru a number of live birds and animals for the Philadelphia Zoological Gardens, consisting of parrots, maroudis, curassows, orioles, bitterns, monkeys, cutias, pacas, squirrels, jaguars and a tapir. The Sun parrot is the most beautiful of all the family. "He spreads his neck feathers in a flaming glory around his head." I carried him on foot for seven days and in the canoe and on launch for two

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months. One of the jaguars was a great pet and was allowed to run about the launch at will. The tapir was about three months old and still retained the white stripes which are characteristic of the young. The tapir is extinct in all the other parts of the world except in southeastern Asia and South America. It is a curious fact that the young in these widely separated areas are alike in color while the adults are quite different in this respect.

The Peruvian launches go to Nazareth on the Javary River, the boundary between the two countries, for purposes of trade with those living on their side of the river. The Brazilian launches stop at Remate de Males on the opposite side of the river. These two villages are the wet season centers for upriver rubber gatherers. Here they loaf and enjoy themselves until the rains cease, when they must go to work again. This location is a convenient one in which to live, because one may take advantage of the different customs duties in the two countries—at night. From this place our launch carried many tons of rubber and on the way picked up six hundred live turtles for the market at Manâos. Beef is scarce there, except for a short period, when cattle are received from the savannahs of Rio Branco. Many cattle are raised in the low grass lands along the river but not sufficient to supply the market. These turtles are caught on the sandbars at night, when they come out to lay their eggs. The people rush out from their hiding places and turn the turtles over on their backs. In this position the turtles are helpless. They are next carried to pens and kept there until a launch arrives to carry them to market. The turtles average about seventy-five pounds each, and sell for five dollars apiece. Our passage, as stated upon going aboard, was to be fourteen pounds sterling, or, at the last known exchange, two hundred and ten milreis; but when we arrived at Manâos, we paid three hundred and twenty-two milreis, or a difference of more than fifty per cent, due to the depreciation of Brazilian currency, on account of the European war. Upriver prices for the most part remained the same, but in the cities the prices increased to keep pace with the depreciation of milreis. The increased cost of imports and freight rates, and the decrease in value of exports and currency made times hard in the valley. Laborers in the cities could not get work, and many moved to the islands, where they lived on farinha and the flesh of the capybara, the largest of the rodents. A boy I had employed on my first trip came back and begged for work again at less than one third of his former wages.

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We soon learned to make farinha our principal food, supplementing it with whatever meat we could get along the rivers, or in the forests. Farinha is the coarse flour made by the natives from the root of the cassava plant. It is used by many of the Indian tribes as well as by all the Brazilian rubber gatherers. The root cannot be used as a vegetable because it is poisonous. Farinha is obtained by grating the root, pressing out the poisonous juice, then roasting the remaining pulp in an open oven. While not palatable, farinha is a very nourishing food and may be eaten as it is, or mixed with soups, tea or even cold water. For the traveler in that region it is the best possible food to carry. It keeps indefinitely and may be procured from any rubber station or Indian village. Instead of roasting the pulp some of the Indians use it in making coarse bread. On the higher land there is a variety known as sweet cassava, which is not poisonous and may be eaten boiled or roasted.

FIG. 29.—Yahua man, Pebas, Peru. The hair is cut short and grass is wound about the head.

THE PURUS

During the rainy season, which lasts from four to six months according to the location, it is difficult to travel in the interior because the rivers overflow their banks and make it impossible to go on foot. It is also a bad time to travel by canoe because there is no high land for camping places, making it necessary to pass the night in the canoes. At such times it is necessary to cook aboard the canoe. The stove in all the canoes along the Amazon is made of a Standard Oil kerosene tin. Three inches of earth is placed in the bottom to prevent burning through. Just above this a hole is cut in one side for the fire. The top is removed and the cooking pot suspended inside. It is cheap, convenient and efficient. Two kerosene tins are shipped in a strong wooden box. These boxes

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serve as seats in all the rubber men's houses. There are no chairs in the region outside of the towns. Everybody sits or lies in his hammock and has little use for a chair. In well-to-do homes an extra hammock is kept for the use of visitors. Little or no food can be obtained on the way. The land animals go to the higher places away from the rivers and one cannot go into the forests for birds or monkeys. Fish cannot be caught in the rivers because they go into the forests to feed. On one occasion we killed a great many fish weighing from four to five pounds each, with our machettes in shallow water among the trees. The Indians who live along the river in the dry season, usually have homes and fields on high land far away, where they retreat during the rainy season. Without a guide these places cannot be found. On one of the rivers we learned that a tribe had a village three days journey on foot from the river in dry weather. They had no canoes and never came outside while the water was over the trail. When we asked the rubber gatherer, who was living in a house on piles, if it was possible to reach the Indians, he said there was no land one could put his foot on within a hundred miles in any direction. We attempted to follow the trail through the woods in a canoe but could not find our way. Then we tried following a small stream, but soon came to a great lake with no streams coming into it. That is, the streams were so small and so winding that the branches of the trees met and left no trace of a channel. There was water everywhere but no passageway for a canoe. We had marked the trees on the way or it would have been impossible for us to follow the same way back to the river.

The wet season begins earlier at the south and travels slowly northward. In order to take advantage of this fact we went up the Purus river, a southern affluent of the Amazon. At this time the river is navigable for more than a thousand miles of its course, to the very frontiers of Bolivia and Peru. It was the time of the greatest rainfall along the Amazon, and for half the distance up the Purus the water was over the banks and flooded the forests for many miles in every direction. The mules, which are used in the dry season to carry the rubber from the distant camps in the forest to the river, are kept on platforms built for that purpose during the four months of the wet season and are fed on wild grass cut along the river bank by men in canoes. In some places, as at Huytanahan, on the Purus, the vampire bats are so numerous and so bloodthirsty it is impossible to keep horses, cattle or even chickens. We are accustomed to

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think of the vampire as a myth. No doubt it is because the vampire of the ancients was a ghost that came at night to suck your blood. After one of these bats had taken his supper from my great toe, I was quite sure he was no ghost. In the morning my feet and my clothing were covered with blood, but I had felt no pain. Just how he is able to make such a deep wound without disturbing his victim, is difficult to understand. His favorite spots for operation on man are the toe, the nose or the temple, and on the horse the withers. The wound leaves a scar as deep as a pox mark. He is not the large bat as is supposed, but of medium size and easily distinguished by his teeth and stomach. He eats no solid food.

When the middle river is over its banks the head streams are already dry. The country is so very flat that when the rains cease the water away from the rivers remains to be evaporated. The water of the rivers soon runs out and leaves them unnavigable even for canoes. At Senna Madureira, the head of navigation, within three weeks from the time the river was over its banks it had dropped fifty-five feet and would not rise again until the coming of the next rains. Small launches caught at such times must remain for five or six months.

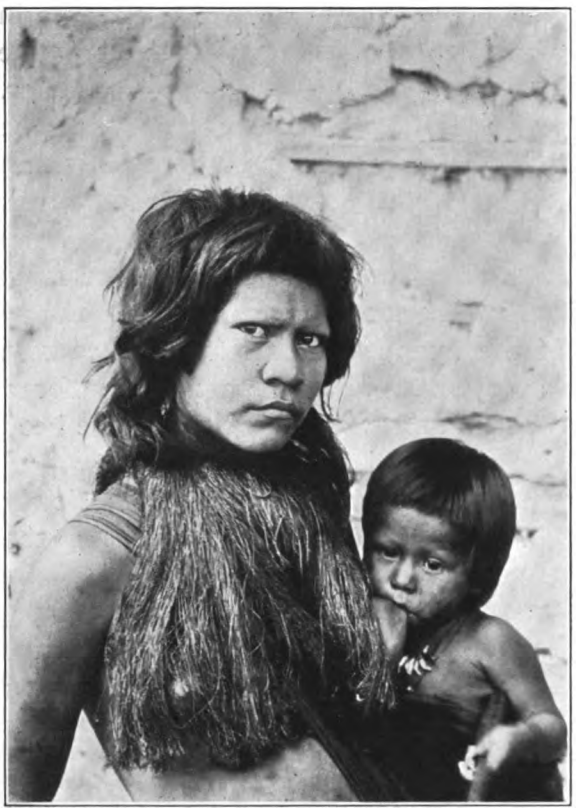

FIG. 30.—Yahua mother and child, Pebas, Peru.

Senna Madureira is the capital of the Acre Territory and is connected with the other districts by wireless. The first people went to the Acre in 1877, but now the population of the Territory is estimated at 30,000. The town has a population of 1,500 during the rainy season and 800 the rest of the year. It has electric lights,

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tram cars, good schools and a college. A few years ago the government established an agricultural experiment station here with all kinds of machinery and tools, but it was soon abandoned. The people will not adopt agriculture as long as rubber gathering is profitable. The sawmill and planing mill were set up but were never in use. The houses are built of lumber from the United States, which has been shipped 2,600 miles through Brazilian forests. The forests are very dense with underbrush and small trees, but

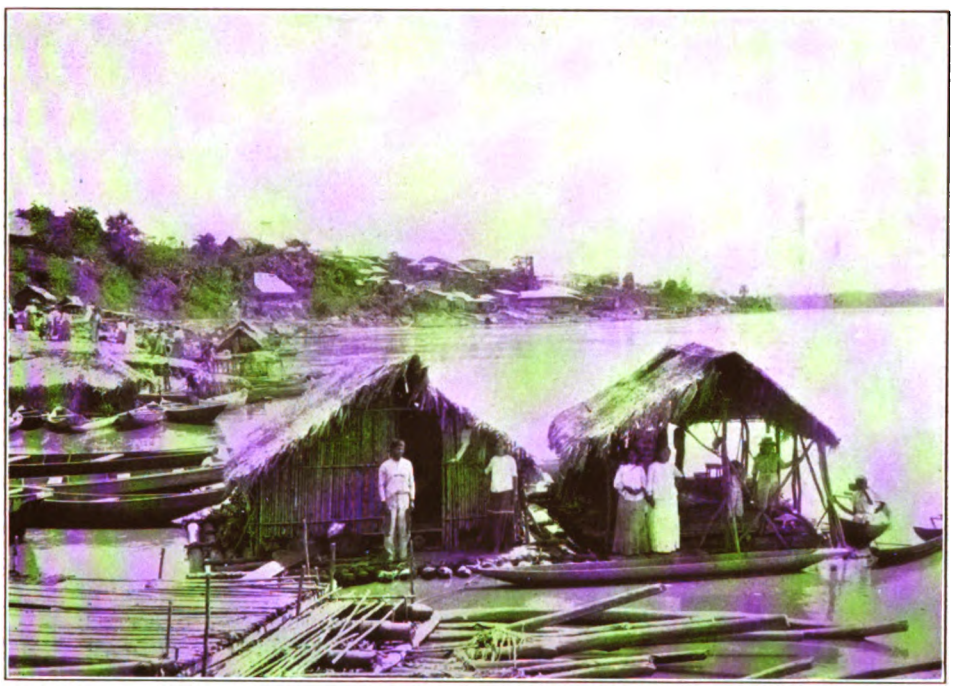

FIG. 31.—Balsa houses at Iquitos, Peru.

large trees grow far apart. One wonders why there are so many young trees a foot or less in diameter and so few old ones.

THE RUBBER INDUSTRY

The rubber is collected during the dry season and shipped down on the high water. In former times the collectors had little communication with the outside world during the gathering season. Because of this they were often taken advantage of by traders who came up to buy their rubber. Now, however, there are several

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wireless stations in the interior, so the collectors learn the general news and, what is of more importance, the price of rubber. In 1912, before the time of the wireless stations, the owners of large "seringaes" took their rubber to Manâos in their own launches. They expected to receive six milreis a kilo, at which price they would have a reasonable profit. But to their great surprise they got sixteen milreis instead of six, and found themselves suddenly made millionaires. Little

FIG. 32.—Cumaria, Peru, head of navigation on the Ucayali River 3,000 miles from the sea.

wonder that many lost their heads and spent their money lavishly and foolishly.

The life of the rubber man in the forest is not one of great hardships, as is often depicted, nor of great privation. At the end of the wet season, which he has spent at the central station, or down river, he, in company with other men, goes by canoe up a small stream to his camp, taking with him his supplies for the five months of tapping. He taps the trees in the morning and collects the milk and smokes it

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in the early afternoon. On his round he carries his rifle and gets enough game to give him a varied diet. He spends a month getting to camp and making ready for work, and another month in getting his rubber to the station. The five months of rain he spends at the central camp, or visiting down river, where he succeeds in spending a little more than his year's profit. Every year finds him deeper in debt to his employer, but he remains happy and continues going the old rounds. He may go back to the same camp for ten seasons, but he seldom makes any clearing or does any planting. He prefers to buy all his provisions. The river may be full of fish, but he would rather buy canned sardines than go fishing. In the Acre Territory, more than two thousand miles up river, we ate American salmon, sardines, beans and potatoes.

The Indians of the Purus collect very little rubber, and few are seen along the river. The rubber gatherer gets all the game in the woods and thus forces the Indians farther into the interior, away from the rivers. When the water is low, the Indians come out and camp along the sandbars, in order to fish. At the time of our visit there were none to be seen along the river. We made several journeys on foot back to their villages, fording numerous streams, with our packs on our heads, and wading through the mud and water of the lowlands. For the Indians, such travel is not so unpleasant, because the men wear no clothing, and the women only a short apron. Such tribes have very little for the collector, with the exception of bows and arrows, hammocks and a few cooking things. Yet their languages, customs and beliefs were interesting and well worth the difficulties in recording them. We visited four tribes, Catyana, Ipurina, Jamamadi and Nawisima, each of whom, we learned from our linguistic material, speaks a dialect of the Arawak language. We found here many customs which resemble those of other tribes of the same stock in British Guiana, two thousand miles away. The Jamamadis have a physical test for marriage for men which might be introduced into civilized society with profit to the race. The young man must first get consent from his parents, the girl and her parents, and the chief. Then, on the morning of the wedding, after he has had his bath in the river, he is taken by the chief to a heavy log. The prospective bridegroom must carry this log on his shoulders a fixed distance; if he is unable to do so he is not allowed to marry. In this way inherited weaknesses and physical defects are eliminated, and a strong vigorous race is the result.

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An Ipurina marries his cousin on his mother's side. The wedding takes place when the full moon is near a bright star. The moon, which is a woman, knows when the girl is old enough to marry. At death "the angel of the eyes" goes to the sky and never returns. They perforate the ears, nose and lips to prevent them from growing too large, but never wear any ornaments. They pull out their eye-brows so they can see more clearly. The rainbow is the reflection of the colors of a large animal that eats the rain. It can never rain as long as you see his colors.

FIG. 33.—Conebo Indian, Ucayali River, Peru.

The Jamamadis marry outside of their own village, but not necessarily cousins, and the man goes to live in his wife's village. The man who marries the oldest daughter of the chief becomes the next chief. He is usually the son of another chief. His hammock is hung between those of his two wives. Death ends all. Nobody knows where the river goes, nor where the sun goes at night. The women wear joints of bamboo an inch in diameter in the lower lip, the septum of the nose and in the ears.

Photography in the tropics is very difficult, on account of heat and moisture. One must carry plates and films in sealed tins, and develop them at night by the riverside, as soon as they have been exposed. We found it necessary at times to dry our plates by the fire. On this voyage we had difficulty in getting the proper exposures. The villages were among the tall spreading trees, without any clearing except that of the underbrush. It is very difficult to appreciate the density of the shadows in these places. As a result, our photographs were underexposed. On one occasion we took a dozen photographs, eleven of Indians, and one of a rubber collector. During my absence of a few minutes, the collector pulled out the slides of the plate holders looking for his picture and ruined all but

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a half of one of the plates. This was not learned until the plates were developed and the Indians had gone.

During our journeys we kept a record of temperature, but it is of little value, because we were not in any one place for an entire year. The record of the government engineer, Joaô Alberto Masô, for 1911, gives a very good account of rainfall, temperature and humidity in the Acre Territory.

Average maximum temperature	94 degrees
Average minimum temperature	81 degrees
Average humidity	88 per cent
Total rainfall	69 inches
Total rainfall for November, December, January and February	42 inches
Total rainfall for May, June and July	0 inches

The humidity of the four months of greatest rainfall is 90 and for the three dry months it is 85. The hottest days are in July, August and September, with an average for the three months of 95 degrees. The coolest days are in February, March, April and May, with an average of 89 degrees. (At Para the hottest day on record was 96 degrees.)

The time and the amount of rainfall varies greatly in the different regions. About the islands in the lower Amazon, just under the equator, the rainy season extends from January to June and the rainfall is said to be 10 feet a year. At Dada Nawa, British Guiana, in latitude 2½ degrees north the fall is 60 inches and nearly all occurs in June, while at Boa Vista, sixty or seventy miles farther west in the same latitude, the rain falls at the same time of year but measures only 42 inches. The agricultural experiments undertaken by the government of Brazil at Boa Vista failed because the rainfall was not sufficiently distributed throughout the season for the development of crops. On the Brazilian side one eats only farinha and dried beef. On the British side Mr. Melville has introduced irrigation by means of American windmills and grows all kinds of tropical fruits and vegetables, such as oranges, bananas, cashews, mangoes, beans, potatoes, tomatoes, etc. The soil is fertile, there is plenty of underground water, there is a constant east wind—hence the windmill is all that is needed to make this a valuable agricultural region.

When traveling in the upper rivers among the rubber gatherers

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by canoe, one receives information from the shore by signals. Every man carries a rifle and uses it for game and for communication. These signals are known and heeded by all. One shot means nothing more than shooting game. Two shots at an interval of ten seconds means good day—a simple salutation—or who are you? when hailing a passing canoe. As we were strangers, two shots required us to stop and to give a satisfactory account of ourselves before

FIG. 34.—Conebo Indians, Pachitea River, Peru.

being allowed to proceed. Three shots at the same interval means that immediate help is wanted. Four shots is the signal to announce a death at the place. Five shots tells everybody that a festival is in progress and that he is invited. One Sunday when we were coming down the Amazon in a launch far from shore, a man came out in a canoe and fired five shots, whereupon we turned and followed him in to shore. There we found nearly a hundred people and spent the afternoon dancing and feasting with them. In this particular

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case we were invited because they expected us to add something to the supply of liquid refreshments. This the captain of the launch did most liberally. The stranger is often surprised at the consideration the captain shows for the upriver people. For the one who can read he has a newspaper, for the children he has candy or even an apple from Oregon, which he can buy any month in the year at Para for ten cents. Those who are fortunate enough to sit at the captain's table soon understand it all. Choice fruits, vegetables, chickens and wild game find their way to his room at every stop.

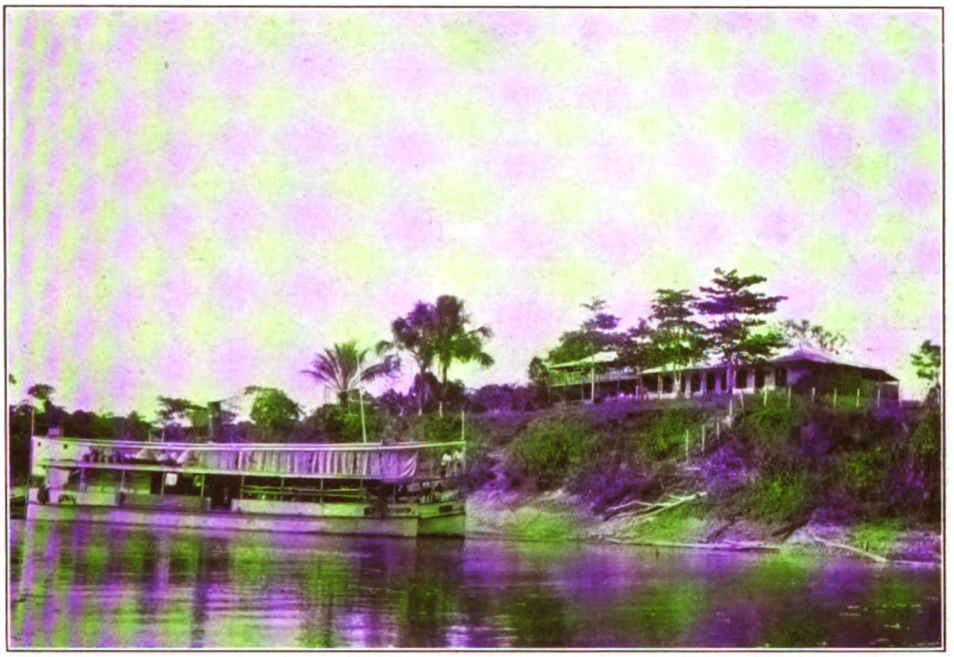

FIG. 35.—Rubber station on Quenuhua River, Peru.

He always has a good supply of such things left over to take home to his family upon his return.

Long journeys up river on the launches become somewhat tiresome, yet there is always something to attract one's attention. Numerous stops must be made to take on wood for fuel because coal is too expensive for river steamers. Cattle for the voyage must be taken from the lower Amazon and killed aboard as needed. Every day the boys must go out in canoes to cut grass to feed them. Occasionally one falls overboard and there is great excitement until it is caught. One day one reached the bank before it was over-

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taken and the boys spent several hours chasing it through the forest before they could catch it again.

The launches which are subsidized by the government must carry a medical doctor and a postal clerk. If the clerk has a letter for a man the launch blows the whistle and the man comes alongside in his canoe but the launch does not stop. The same thing is true if there is cargo for the man: the whistle gives him the information, and the launch carries him along until the canoe is loaded, when he casts off and floats back home. If the man on shore wants medicine

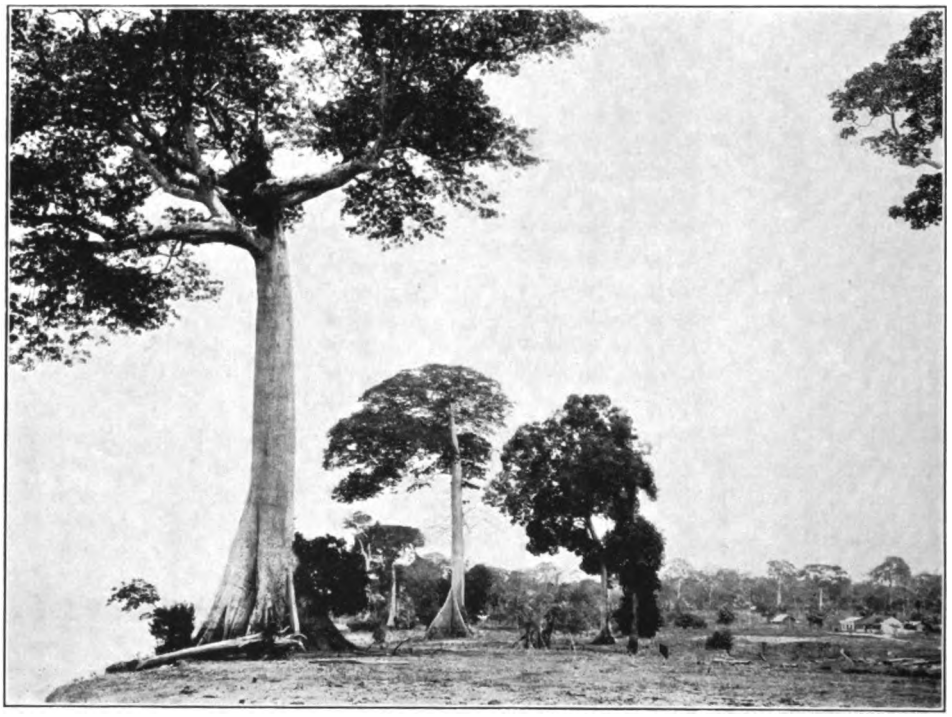

FIG. 36.—Caiambé, Brazil.

or to take passage he fires a signal and starts out in his canoe to meet the launch. On the return voyage more stops must be made to take on the rubber.

One's traveling companions are Brazilian officials, owners of rubber stations, rubber collectors; Turk, Assyrian and Jewish traders. In Peru, Spanish is the launch language and in Brazil it is Portuguese. One hears every language, from Arabic to Arawak, but no English. The day is largely spent at the table. Coffee at 6.00, breakfast at 10.30, coffee at 2.30, dinner at 5.30 and a coffee nightcap at 8.00.

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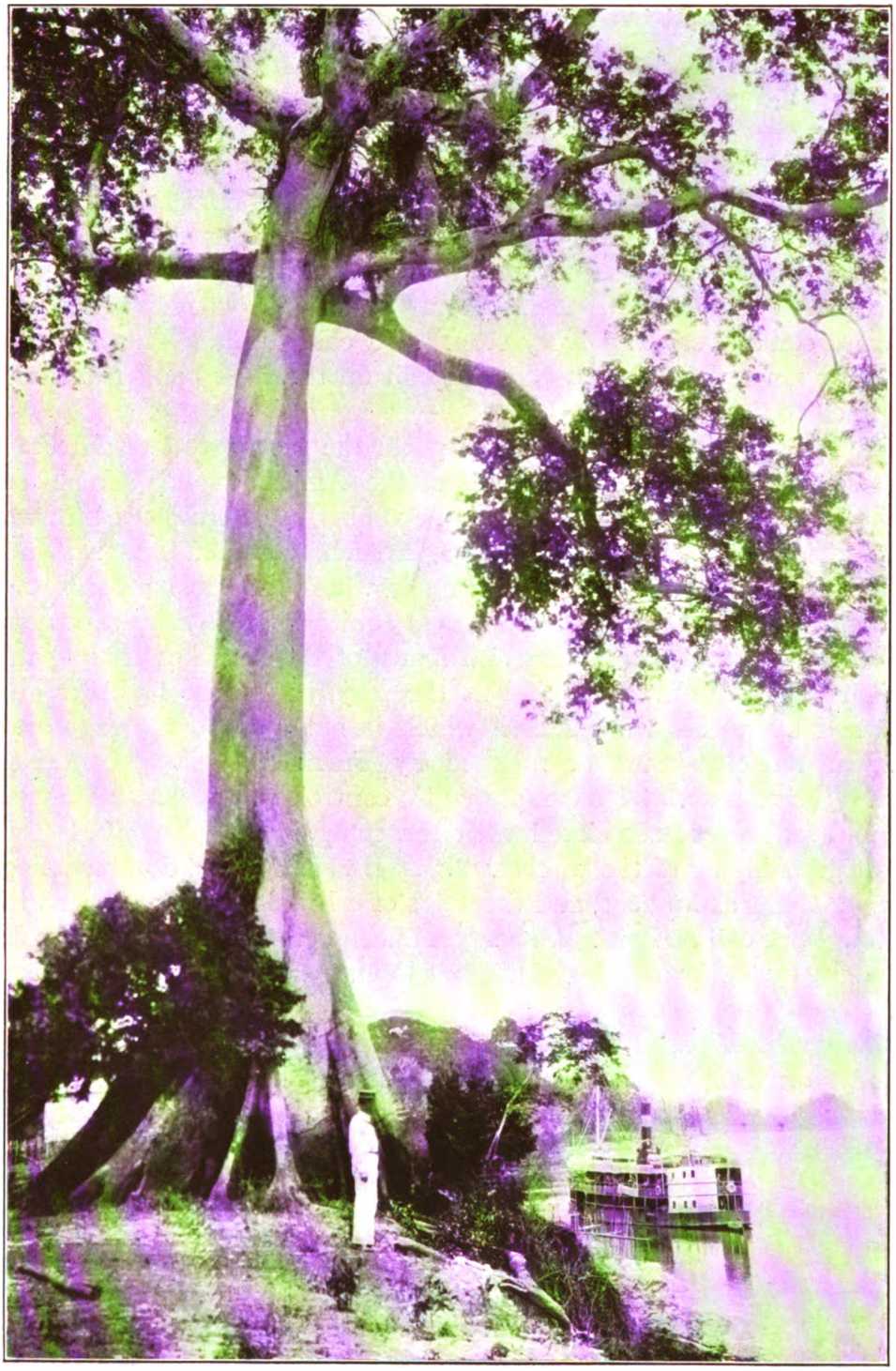

FIG. 37.—Sumauma tree, common along the Amazon in Brazil.

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Wine is always served with the meals. We happened to be in the Acre at Easter time. Effigies of Judas were burned at many places along the river banks. Fast days were observed aboard the launch; that is, the gong did not sound to call us to our meals, but the regular meals were served for those who did not care to fast—there were not many vacant places. These launches under government contract are not allowed to do any trading. They carry a refrigerating plant but cannot sell ice. They sell beer and wine on board to passengers 2,000 miles up river at the same price as at Para. This is often one-fifth the local price for warm beer. It is little wonder then that many come aboard at every stop, for a cold drink. They have a saying among themselves that they sit on the river bank from one launch to the next.

It is interesting to note the parts the people of the different nationalities play in the business of the Amazon valley. In Peru the owners and the collectors of the rubber are Peruvians, but the trade is in the hands of English, French, German, Spanish and Moroccan Jews, while the shipping is wholly in the hands of the English who own the floating docks at Iquitos. In Brazil the owners and collectors are Brazilians and many of the launches trading up river belong to Brazilians. But the majority of the launches are owned by an English concern which is not allowed to trade and whose launches must be manned by Brazilians—pilots, captains, officers and men. This company also controls the docks at Manâos and Para and is associated with the company which controls the foreign shipping of the whole valley. Brazilian ships do a coasting trade as far as Manâos, and the ships of a Brazilian line from Rio to New York call at Para. The small business in the cities and towns is done by Turks and Assyrians, but the larger business of supplying the rubber men, the nut collectors and the cattle ranches is done by Portuguese houses. The exporting houses are German, English, and American, while the foreign banks are English.

W. C. F.

[To be concluded.]

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NOTES

At the January meeting of the Board of Managers, Mr. Louis C. Madeira was elected a Vice-President of the Museum.

A new section has been created in the Museum to correspond to the more recent activities in assembling collections from the Far East. The Section of Oriental Art will include the collections which illustrate the historic periods of the arts in China, Japan, India and Persia and the countries in the Far East that are immediately influenced by these civilizations. Mr. Carl W. Bishop has been appointed Assistant Curator of this section.

Mr. Bishop left Philadelphia in February to proceed to Japan and China for three years' study in the Far East. It will be his purpose to invoke the cooperation of scholars and authorities in the far eastern countries for the investigation of Chinese life in the prehistoric and historic periods. He will, if possible, procure examples to illustrate the history of the arts and industries in China.

The Eckley B. Coxe, Jr., Egyptian Expedition has been at work on the cemetery at Dendereh and has recently moved to the camp at Memphis to resume the excavations which were conducted there last year.

Mr. Louis Shotridge has continued his work in Southeastern Alaska under the appropriation made by Mr. John Wanamaker. Mr. Shotridge has been successful in his collecting and in his recording of the social life and customs of the Tlinkit peoples.

Mr. Robert Burkitt has continued his studies and investigations in Guatemala. A collection of the modern products of the Indians has been assembled, together with a series of their myths and legends recorded in native languages.

Reports have been received regularly from Mr. Alexander Scott in charge of the Museum's expedition in India. Mr. Scott has already studied many sites and has been in close touch with the

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Archaeological Survey of India under the direction of Sir John Marshall, through whose cooperation and assistance Mr. Scott's work has been agreeably facilitated.

The following gifts have been received.

From Mr. Hampton L. Carson a piece of painted tapa cloth from Samoa.

From Miss Frances A. Roberts, a feather robe from North Africa.

From Mr. J. Maxwell Bullock, a native drum from the Island of Hayti.

From Dr. Horatio C. Wood, a pair of Japanese swords.

From Miss Alice M. Freeman, a Greek vase and a Greek terra-cotta figurine with movable legs and arms.

The following purchases have been made during the three months ending March 31st.

A Greek stele or grave relief described in this number of the JOURNAL.

Five Babylonian tablets.

A Chinese sculpture of the Wei Period.

Four Chinese pottery vases and three pottery figures all of the Ming Period.

Five Persian textiles of the sixteenth and seventeenth centuries, three Persian bronze vessels and one Persian bronze ring from the door of a shrine with inscription inlaid in silver.

Five objects from the South Sea Islands.

An American Indian shield.

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A collection of Panama pottery.

A deck of Apache playing cards of skin in decorated case.

Two collections of European prehistoric flint implements.

Dr. Stephen Langdon, the Curator of the Babylonian Section, has in press two volumes dealing with some of the tablets in the Museum collection which he has been cataloguing. He has also prepared for this number of the JOURNAL two articles on tablets of exceptional interest for readers of the JOURNAL.

Dr. Langdon, who is Reader of Assyriology at Oxford University, and a close associate of Prof. Sayce, has a special interest in the Sumerian language in which many of the tablets are written. This ancient and obscure language, together with the Semitic languages of Babylonia and Assyria, forms Dr. Langdon's special field of research and makes his services of special value to the Museum and to American scholarship.

Dr. Edward Chiera, Instructor in the Department of Semitics in the University of Pennsylvania, has been assigned, for copying and translating, a large group of Babylonian tablets containing lists of personal names. Dr. Chiera has prepared and submitted two volumes embodying these Assyrio-Babylonian texts. These two volumes have now been published by the Museum and constitute an important study of Semitic personal names. Dr. Chiera is now at work upon a third volume dealing with the same subject.

Dr. H. L. Lutz, formerly a student of Prof. Albert T. Clay in the Department of Assyriology at Yale University, was appointed Harrison Fellow in Semitics at the University of Pennsylvania at the beginning of the Academic Year, 1916–17.

Dr. Lutz has been engaged upon copying a series of Babylonian letters assigned to him, and preparing a volume thereon for the Babylonian Series of the Museum.

Dr. George A. Barton, of Bryn Mawr, has in preparation a volume of religious texts based upon tablets which have been assigned to him from the Museum's collection and which he is copying. Among these tablets, which are written in Sumerian, is one which contains an account of the Creation of Man.

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Mr. Richard B. Seager has completed his report on the work at Pachyammos in Crete conducted during the years 1914–15. The volume, which is illustrated by many plates showing the pottery discovered, has recently been published in the Anthropological Series of the Museum.

The lecture course on Saturday afternoons was concluded on March 17th when Dr. Fay Cooper Cole delivered the eighteenth lecture of the series. At each of these eighteen lectures the Auditorium was filled to its capacity. The Museum feels justified in having taken pains to secure the best lecturers upon topics of special interest.

The Wednesday afternoon lectures provided for the teachers and pupils of the elementary schools and the high schools, proved again this season that this direct educational feature of the Museum is one that appeals both to the teachers and to the pupils. Twenty-one talks, illustrated by stereopticon and motion pictures, were given in the Auditorium, which was filled on each occasion with teachers and their pupils.

The Society of the Sigma Xi held its third meeting of the session at the University Museum on Wednesday evening, March 14th. The exercises were held in the Auditorium and afterwards the members and their friends who were present inspected the exhibition rooms.

Arrangements have been made for a special exhibition to include some of the more important of the recent acquisitions of the Museum, together with several groups of objects which have been lent by the owners for the occasion. The exhibition will consist of European tapestries, Oriental rugs, Chinese sculptures, paintings and art pottery. There will also be included in the exhibition certain important accessions in Greek sculpture and pottery and the John Thompson Morris Collection of coins.

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The following persons have been elected to membership in the Museum.

Fellowship Members

J. Emott Caldwell
Cyrus H. K. Curtis

Sustaining Members

William P. Bancroft
John Hampton Barnes
George W. Elkins, Jr.
Samuel Horner, Jr.
J. L. Ketterlinus
C. W. Macfarlane
W. W. Montgomery, Jr.
Edward Morrell
Mrs. W. Brooke Rawle

Annual Members

E. I. Atlee
John E. Baird
A. Charles Barclay
Washington Barnhurst
Mrs. H. H. Battles
Dr. Clement Biddle
John S. Bioren
Charles L. Borie, Jr.
William Findlay Brown
John Cadwalader, Jr.
John M. Campbell
Harvey N. Carpenter
Miss Ann C. Carson
John H. McQ. Carter
Dr. Judson Daland
Mrs. Charles E. Dana
Richard W. Davids
Mrs. Henry C. Davis
Thomas Devlin
Allen Evans
Pasquale Farina
Hector T. Fenton
William C. Ferguson
Miss Edith T. Fisher
Benjamin W. Fleisher
Miss Hannah Fox
Miss Alice M. Freeman
Charles Freihofer
John Marshall Gest
Mrs. A. T. Getzé
Warren G. Griffith
Dr. S. McC. Hamill
Florence J. Heppe
Mrs. Horace Binney Hare
George Howe
Miss Margaretta Hutchinson
S. Pemberton Hutchinson
Henry K. Kelly
Strickland L. Kneass
Mrs. John Markoe
A. Robinson McIlvaine
Walter S. McInnes
Arthur E. Newbold, Jr.
John M. Okie
Alexander E. Outerbridge, Jr.
Charles E. Pancoast
Mrs. Charles B. Penrose
John O. Platt
Eli Kirk Price
Evan Randolph
Mrs. Evan Randolph
Mrs. Joseph M. Rogers
H. B. Rosengarten
Miss Emily W. Sailer
Mrs. William J. Strawbridge
Mrs. Edward Starr
Warner J. Steel
Hollinshead N. Taylor
Walter S. Thomson
Mrs. Edward Dale Toland
Carroll S. Tyson, Jr.
Herbert Welsh
Thomas Raeburn White
Henry Wharton
Marshall S. Winpenny
Mrs. Dillwyn Wistar
Edward Randolph Wood
Mrs. Walter S. Wyatt

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FORM OF BEQUEST

I give and bequeath to the trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here specify in detail the purposes.)

MEMBERSHIP RULES

There are four classes of membership in the Museum:

Fellows for Life, who contribute..... $1,000
Fellowship Members, who pay an annual contribution of..... $100
Sustaining Members, who pay an annual contribution of..... $25
Annual Members, who pay an annual contribution of..... $10

All classes of members are entitled to the following privileges. Admission to the Museum at all reasonable times; an invitation to any regular reception given by the Board of Managers at the Museum; invitations and reserved seats at lectures; the Museum Journal; Copies of all guides and handbooks published by the Museum and free use of the Library. In addition to the privileges to which all classes of members are entitled, Sustaining Members and Fellows receive, upon request, copies of all books published by the Museum.

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UNIVERSITY OF PENNSYLVANIA

THE MUSEUM JOURNAL

PUBLISHED BY

THE UNIVERSITY MUSEUM

FOR ART
FOR SCIENCE
FOR CIVILIZATION

PHILADELPHIA
JUNE, 1917

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THE EXPLOITS OF HERAKLES	STEPHEN B. LUCE, JR.
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¶ The Purposes of the University Museum

¶ To give to Philadelphia a Museum that will be in keeping with its traditions, that will answer to its needs and that will sustain its historic repute as a Stronghold of Civilization.

¶ To assemble collections that will illustrate the achievements of Mankind in the field of Art, and to cherish and preserve this Heritage from the Past.

¶ To trace the origin of Civilization and to reconstruct the successive steps and the varied episodes that have attended its development.

¶ To encourage the Arts; and to demonstrate the debt that Civilization owes to the Artist and to the Craftsman.

¶ To encourage Research, to send out expeditions to excavate the buried cities of Antiquity and bring to light the records of the Past; to gather and preserve the early Arts and ancient Lore handed down by the vanishing races of Mankind.

¶ To promote a knowledge of Humanity and to disseminate that knowledge by lectures, by publications, by cooperation with the schools and through the medium of the University; to illustrate the unity of all races and the diversity of their Art, to inculcate a better and more sympathetic understanding of all peoples and to afford a just measure of the contribution that each has made to Civilization.

¶ By bringing the people into direct contact with the visible Past and its prolific life, to exert a civilizing and humanizing influence upon our manners and habits of thought.

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In the Solitudes of Central Alaska. A Scene on the Kantishna River.
Photo by G. B. Gordon, July, 1907.

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THE
MUSEUM JOURNAL

VOL. VIII PHILADELPHIA, JUNE, 1917 No. 2

REVIEW

NOTWITHSTANDING adverse conditions which could not fail to affect the fortunes of all public institutions in this country such as the University Museum, the constructive work of the Museum during the first half of the current year has not been diminished. At no corresponding period have more important accessions been made. At the same time, reports from the expeditions in the field have indicated satisfactory progress in their several fields of labor.

IN the last number of the JOURNAL attention was called to the accessions of the first three months of the year. Among the objects described in detail was a Greek stela on the fourth century B. C., the importance of which is well known to everyone acquainted with ancient Greek sculpture.

Following the purchase of this monument of ancient Greek art, the Museum had occasion to be congratulated again upon the acquisition of a great Chinese sculpture of the Wei Dynasty which was acquired through the generosity of Mr. James B. Ford. This sculpture has on its front a statue of Maitreya, the future Buddha and Messiah for whom the Buddhist world is waiting, and on the reverse a long inscription in ancient Chinese characters. It has been set up in a central position in Harrison Hall directly opposite the entrance, where it has an appropriate setting as the most conspicuous object in the room and the most impressive monument of ancient Chinese art that has come into the possession of the Museum. The gold and colors with which the stone was overlaid still cling to the face and to the draperies of the statue, as well as to

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the canopy that rises above its head, imparting, by their softened glow, a warmth to the whole monument, that harmonizes well with its present surroundings.

The date, 516 A. D., which is found in the inscription on the reverse, is of peculiar importance, for it enables us to assign this great work beyond dispute to the Wei Dynasty and helps to establish a chronology for the early periods of Chinese sculpture and especially to identify the style and method of treatment that marked the movement that flourished under a powerful Buddhist impulse in the Northern Kingdom of Wei during the fifth and sixth centuries.

IT is not possible to mention individually all of the objects that have been acquired during these months, but there is one in addition to those mentioned that claims the distinction of special reference. The object referred to is a large rug of the K'ang Hsi Period (1662–1723 A. D.) which has lately been purchased and which is now on exhibition in Harrison Hall. It measures twenty-four feet square and is in a perfect state of preservation. Ancient Chinese rugs are rare and this fact, together with their great beauty of design and color, ought to make the acquisition of so perfect an example an occasion for renewed interest on the part of students and lovers of art generally in the opportunities which the Museum affords for advancing their knowledge and increasing their enjoyment. The accession of this remarkable rug calls attention also to another use of the Museum, which is to provide correct models for practical application in those industrial arts which are founded on the adaptation of artistic design to mechanical processes, such as the manufacture of rugs. In other words, by showing good models, the Museum can bring together the artist and the manufacturer in a combined effort to get rid of ugliness.

MR. C. W. BISHOP, Assistant Curator of the Section of Oriental Art, whose departure for China was announced in the last number of the JOURNAL, arrived in Japan on the 31st of March. He writes from Nikko, under date of April 10th, as follows.

"The day following my last letter to you, dated March 7th, Professor Sayce left for Honolulu, after a final talk in which he suggested that we investigate together the work done in China by Japanese archæologists, with a number of whom he is acquainted. The Japanese have done some very important work in that field, and

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it will be well for us to familiarize ourselves with their results. In no way, I am sure, could this be better done than through Professor Sayce's help, for he stands as high with the Japanese, both officials and students, as he does elsewhere; I think you know that he was decorated by the late emperor, and he tells me that he has been granted the privilege of seeing the Shosoin at Nara this year. I consider it a piece of very great good fortune that the Museum's actual field work in this region can be inaugurated so auspiciously.

I shall be leaving for China in about a fortnight. Much of the Japanese work along archæological lines has been done in Shantung province, and Professor Sayce has already put me in touch with one of the men who have done most there; he also suggested that I visit Tsing-tao on my way to Peking, which I can very easily do. So in all probability I shall go to Shanghai by boat, and see what can be done there in the way of additions to our library; then proceed by coasting steamer to Tsing-tao and thence to Peking, probably by rail."

The expedition to the Far East under Mr. Bishop's direction has been planned to continue for three years and while its general scope has been laid down on broad lines, the details of the work will be developed gradually by Mr. Bishop in the field. The principal purpose of the expedition is to pursue archæological and ethnological research. The history of Chinese art, especially in its earlier periods, is buried in the obscurity of the past, and, although it reveals itself in isolated and impressive outcrops, still awaits investigation, and the separate and fragmentary facts that have come to light remain to be coordinated. In these respects Mr. Bishop's work, through the aid of Chinese scholars and written Chinese records, may be expected to help to bring home to us a better understanding of the Chinese people, both in antiquity and in their historic present.

THE Eckley B. Coxe, Jr. Expedition to Egypt, after having completed a three months' period of excavation at Dendereh, moved its camp to Memphis and resumed on that great site the excavation of the Palace of Merenptah, interrupted at the beginning of July, 1916, by the rising of the Nile. The plan upon which this expedition has worked during the last three years in Egypt has been to dig at Memphis during the season when the low Nile leaves that site dry, and to retire south to Dendereh, which is above high water,

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to dig there during the high Nile. Under this arrangement the first of March is about the time for beginning work at Memphis.

The expedition is made up of Mr. Fisher and his assistant, Mr. Sanborn, together with one hundred and sixty native workmen and foremen. Fortunately, conditions in Egypt have continued favorable for the work of the expedition. In one respect only was any change necessary during the present year. It was found that the price of food had advanced to such an extent that special provision had to be made for the workmen so that their earnings might be adjusted to their needs.

The following letter has been received from Mr. Fisher, written at Memphis on April 23d.

"I am much pleased with the prospect of this season's work. Instead of the entrance which I had expected at the north end of Merenptah court, we are apparently entering into another suite of rooms like that which we had at the south end. These rooms again had columns and door enframements beautifully inlaid with faience. Every month that we work on this building I realize more and more its interest and importance. I hope I shall not discourage you and the Committee when I say that now the extent of the building indicates that we shall be kept busy with a full force from six to eight years more. If my deductions are correct as to the extent of the building, we have at present only one small wing or a single building in a great group, the length of which from north to south is not less than four hundred feet. My only regret is that we cannot clear it more rapidly, but it lies eighteen feet below the surface. As an example of what we have done, in order to clear court 19 with its colonnade of thirty-two columns, we have removed upwards of 245,000 cubic feet of hard packed earth, and of the entire building itself we have cleared three-quarters of an acre on the same scale. This will give you some idea of the magnitude of our task."

The results of the excavations made at Memphis and at Dendereh by the Egyptian Expedition have been extensive and important. Many objects of ancient art: sculpture, metal-work and pottery have been found. In addition to these, the architectural details of the great palace of Merenptah are being gradually uncovered at a depth of eighteen feet, laying bare the most important example of a royal palace that has ever been made known in Egypt. This palace is so large and so deeply buried that it will take some

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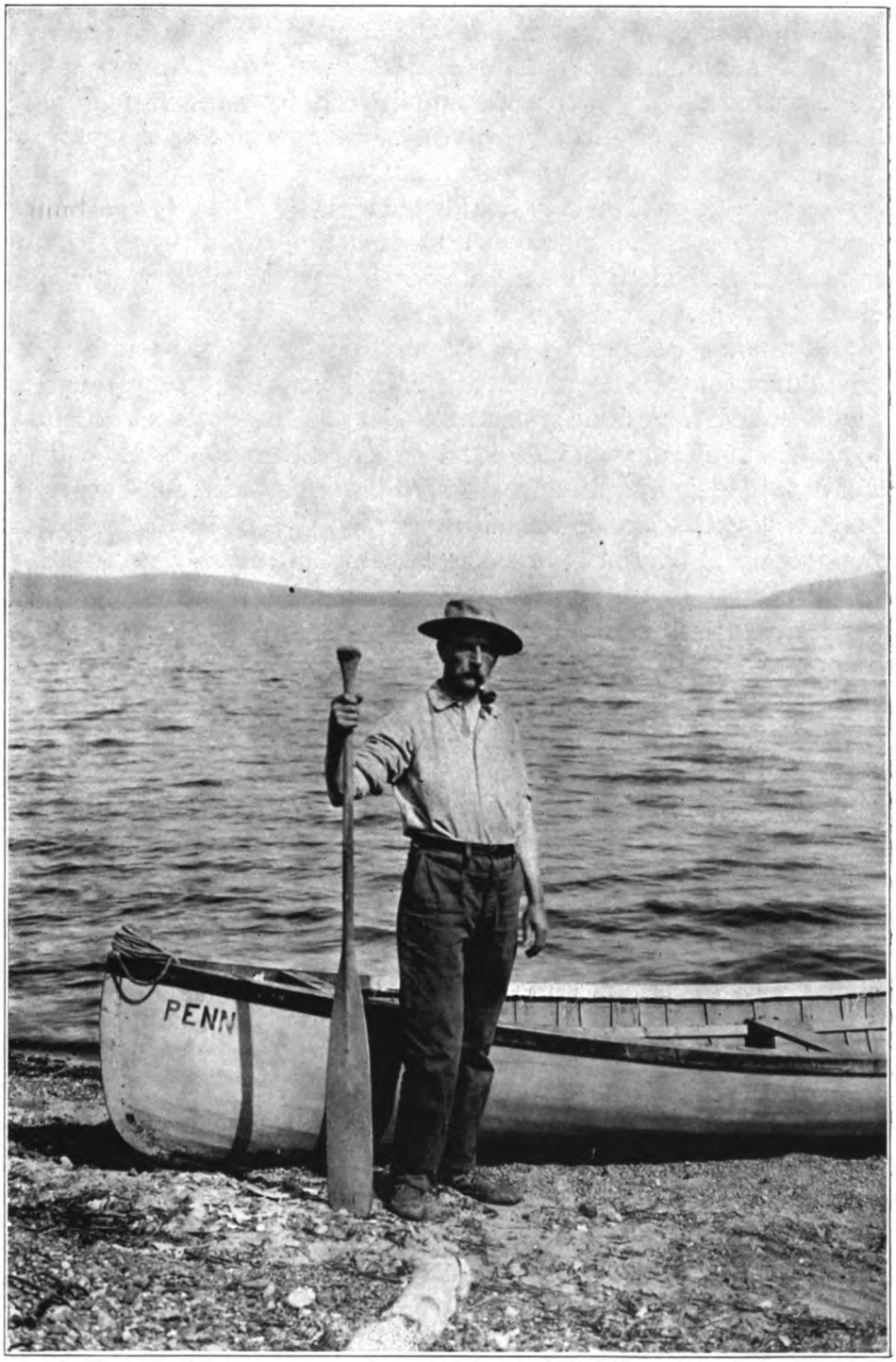

G. B. Gordon at Lake Minchumina, Alaska, July, 1907.
Photo by MacLaren Gordon.

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years to clear the entire plan, and this architectural feature of Mr. Fisher's discoveries when complete will furnish for study rich material of a kind that will not be otherwise accessible. Many of the movable objects that have come to light in the excavations will eventually be displayed in the University Museum. For the present they are stored in Egypt for greater safety.

When the Egyptian Hall of the Museum shall have been built, the discoveries of the Eckley B. Coxe, Jr. Expedition to Egypt adequately installed will afford a very impressive view of the life of ancient Egypt. As a part of that exhibit it is planned to reconstruct in the Egyptian Hall several of the rooms in the Palace of Merenptah showing the wonderful inlaid doors and lotus columns. Such an exhibit would comport well with the educational purpose of the Museum and would be a telling tribute to the work of the expedition. In order to effect this purpose it will be necessary to build an extension of the Museum for the Egyptian Section, such extension to consist of at least one large hall and several smaller halls. In order to take advantage of the opportunities that have been afforded the Museum in Egypt, to give the work of the expedition its due, and to give the public all the advantages that have thus been gained, the building of the Egyptian Section will be an obligation and a necessity.

NOT only have the Egyptian collections remained in Egypt, but collections assembled by Mr. Alexander Scott in India have, on account of the risk and high rate of freight and insurance, been stored in Bombay awaiting a favorable opportunity for shipment. Since the Museum has acquired so many fine examples of the Buddhist art of China, the collections which Mr. Scott has procured assume a more than usual importance for the Museum, because they will serve to illustrate the affinities that exist between the artistic expression of Buddhism in India on the one hand and in China on the other. As India was the mother of Buddhism and China the child, and as India derived artistic inspiration from the West, a comparison of early Buddhist art in China with that of India is full of interesting possibilities.

ALASKA is a country which, till very recently, has been left in possession of the natives, who, in turn, retained their original customs and their original arts. At the present moment Alaska is

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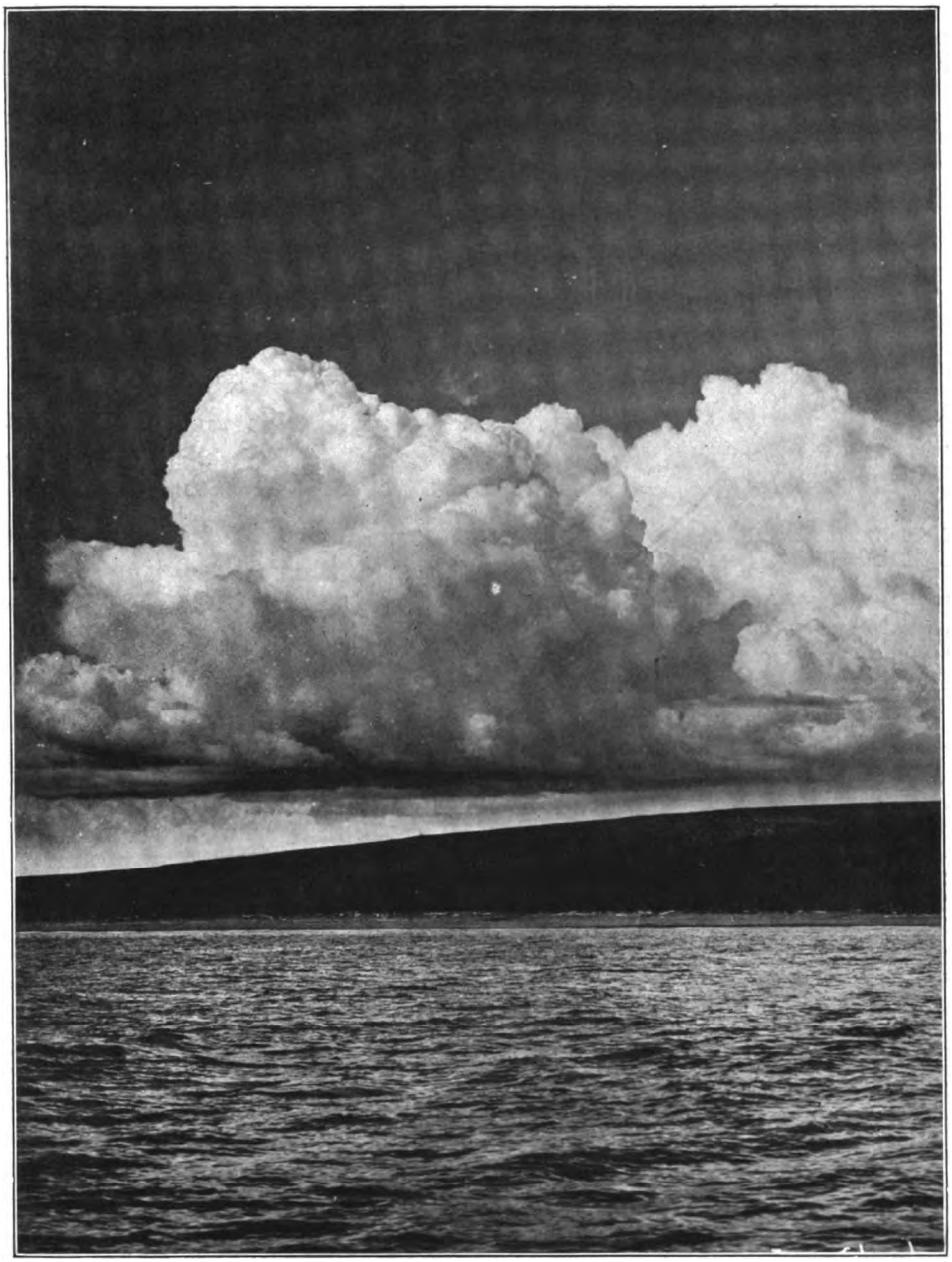

Nome, Alaska.

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undergoing a very rapid transformation through its exploitation along many lines of development. While this exploitation proceeds the native disappears, or at all events his customs and arts become obsolete. With this thought in mind the Museum, through Mr. John Wanamaker, has equipped two expeditions, one to work in the south and the other to work in the north of Alaska. By the generosity of Mr. Wanamaker, Mr. Louis Shotridge of the Museum staff, a full blood Indian of the Chilkat tribe, has been since the summer of 1915 working among his own people in southeastern Alaska. Mr. Shotridge's work has been marked by great industry and aptitude. Among the collections received are old works of art which have been handed down for many generations in the Chilkat tribe and which will be among the most prized possessions of the American Section of the Museum. It is our purpose to make a sustained effort which will afford in the end a complete historical and ethnological study of the Tlingit people, to whom the Chilkats belong, and to assemble in the Museum, collections which will faithfully represent their manners and customs and especially the rich and remarkable art which was an expression of their inner life.

The expedition to northern Alaska left Seattle early in June in charge of Mr. W. B. Van Valin and will proceed to work among the Eskimo on the shores of the Arctic Ocean. Some of these Eskimo have seldom been visited and still retain all the characteristic institutions which have been handed down from unknown generations.

The Museum possesses already an extensive collection illustrating the life of the Eskimo in which can be seen a great inventiveness on the one hand and an active artistic temperament on the other. The expedition to Arctic Alaska will forge an important link in our knowledge of the chain of pure Eskimo culture that reaches from Labrador on the Atlantic side of the continent all the way across the shores of the Arctic Ocean and Bering Sea to the northern Pacific. Almost all of this far flung culture area is already represented by the Eskimo collections in the Museum.

THE special exhibition, opened on the evening of April 11th, has given pleasure to the many visitors who have taken advantage of an unusual opportunity to profit by a very inspiring lesson in several departments of art. When this exhibition was opened, the new Chinese statue of Maitreya was shown for the first time and the invited guests had also an opportunity of seeing an exhibition

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of Greek sculpture such as Philadelphia has not hitherto enjoyed. The collections of Greek and Roman coins were also shown for the first time. These several features of the exhibition remain as permanent integral parts of the Museum's collections. In addition were shown several loan collections which gave expression to the wish of the Museum to enlarge its interests, to strengthen its scientific and artistic uses and to amplify its educational work. These loans supplied for the time being, objects of the very highest importance of a kind that the Museum has not yet been able to acquire.

The collection of ancient Chinese jades was in itself an epitome of old tradition embodied in beautiful and curious carving and in the hardest material known to lapidaries; for jade was the medium chosen by the Chinese in ancient times to express in the subtlest terms of symbolism the thoughts and aspirations of mankind.

The vases of pottery known as Chun Yao, made by the Chinese potters of the great Sung Dynasty, must be regarded as unique examples of this exquisite and very appealing product of an age gone by, and of a technical knowledge that stimulates our imagination, though it baffles our skill.

To many people the supreme interest in the exhibition attached to the European tapestries. Among these were two that possess such exquisite beauty and such rarity that they invite special mention. These gems of the collection were two millefleur tapestries made at Arras in the fifteenth century. They belong to a class of tapestries of which very few are left and which in design, color and texture are quite beyond the resources of modern art and modern methods of manufacture.

TOGETHER with its constructive work along the lines which have been described, the Museum has issued during the first half of the year, five volumes in its regular scientific series. Four of these were issued from the Babylonian Section and one from the Mediterranean Section and all represent original work done in the Museum by its own scholars or by scholars working under their supervision and with the facilities for investigation and instruction which the Museum affords.

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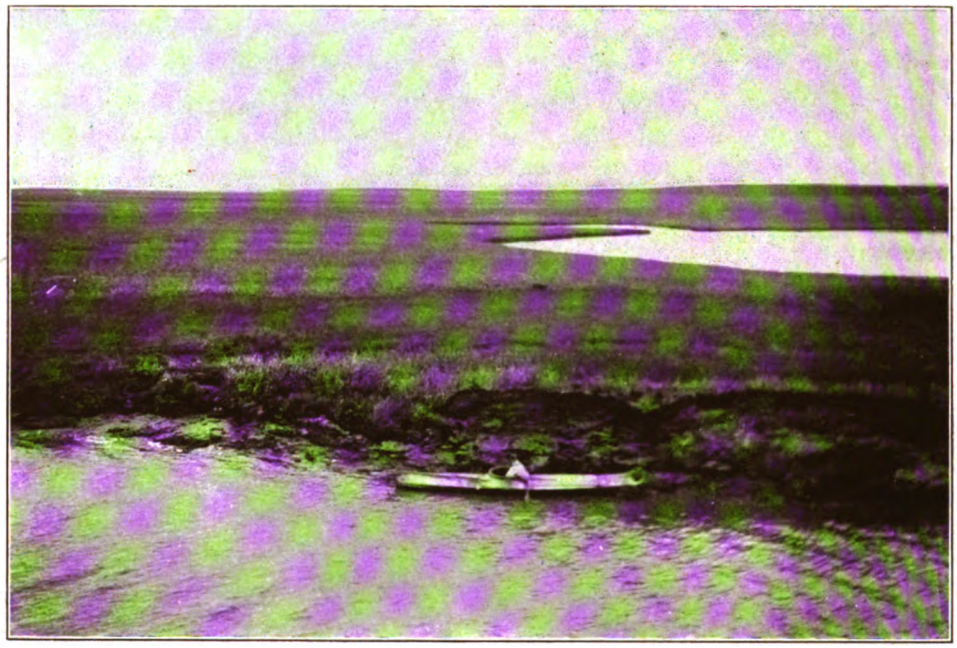

FIG. 38.—The monotonous Alaskan coast of Bering Sea is inhabited by the Eskimo.
Photo by G. B. Gordon.

Photo by B. B. Dobbs.

FIG. 39.—The Aristocracy of the Arctic. Eskimo girls at Bering Straits.

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MY NORTHLAND REVISITED

Mr. Louis Shotridge, the author of this article, was born at the old Indian town of Kluckwan on the Chilkat River. He is a full blood Chilkat and is the son of a Chief of the Eagle side. Mr. Shotridge has been a member of the Museum staff since 1912 and was sent to Alaska in 1915 to study the customs of his people, a task upon which he is still engaged.—EDITOR.

UPON my arrival in Chilkat in the summer of 1915, I immediately set to work collecting material with a view to recording for the Museum a faithful history of the Tlingit people. I proceeded in the usual way of obtaining information from the natives, which is to hire an informant. For a while I traced events one into another and continued so until I discovered inaccuracies in many polished stories. The part that many Tlingit informants play in recording myths and other data has been to a great extent commercialized. Many important stories are polished ready to be given in exchange for cash. A desire to overcome this habit forced me to scheme as to the safest way to approach the natural self of the man whom I am to represent. I took all precautions and gave myself plenty of time. Meanwhile I made frequent visits to different families in various surrounding summer camps and noted different things that are of interest.

Like many other native tribes of America, the Tlingit people are wandering step by step away from their old customs and habits. Modern influences that are the causes of the heterogeneous changes in their lives are particularly noticeable at places where European immigration is encouraged by the prospect of beginning a new life. Most of the Alaskan Indians are fascinated by the new ideas of these white people and casually adopt them. Only a few affectionately hold to the teachings of their forefathers.

As soon as the campers started to move back to their winter quarters after the close of the summer season, I started preparing a shelter for my wife and myself in readiness for the approaching winter. We made our headquarters at Haines, a small town of about three hundred inhabitants at the mouth of the Chilkat River. From here I planned my winter trips to other villages.

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In the latter part of the autumn I made my second visit to Klaku-aun, my birthplace, an ancient town situated about twenty-three miles up the Chilkat River. I came this time to pay my respects to a "Call together" ceremony, which had been proposed by my family.

The call together is a revival of what has been known as a "Drum-bearing" ceremony (interpretation of the Tlingit name for a mourning ceremony). In former times it was performed immediately after a death.

I remember clearly when I was a boy the last drum-bearing ceremony which was performed at Klaku-aun by the Gana-tedi' clan of the Raven side. The deceased man was not of a high caste, but a member of a well to do middle class family. The body remained in his family house for four days, during which time his clansmen conducted the mourning ceremony. Customarily the relatives of the widow are called on to perform all the labor that is connected with the funeral.

After the corpse had been dressed, his hair well combed, face painted and his moccasins and mittens well secured, in short, prepared as a man for a journey, he was seated in the rear of the room and the Gana-tedi' began to enter the room, each person presenting his own contribution of skins, blankets and other representations of currency, which were placed on a line stretched across the rear and when this was filled more lines were stretched in other conspicuous places, where each object might be seen.

The women began the first day by fasting and each had some one from her opposite side to bob her beautiful long hair at shoulder length. Two of the women were chosen to take care of the widow, to bathe and dress her. Meanwhile the men held a council, laying out plans, rehearsing speeches and songs for the occasion.

At the close of the first day a na-ka'ni (brother-in-law of the clan) was sent out to call together in the family house the clans of the Eagle side. Presently the guests began to arrive. A receiving man who had taken his position at the entrance announced individual leaders as they passed into the room. Each man was seated according to his social standing; thus when the chief of the Kaguantan (the leading clan of the Eagle side) entered, his proper place was called out: "To the rear middle, to the seat of your uncles, you are seated in the name of our uncle. . . ." (Here name of some clansman who had passed away to the land of souls was mentioned.)

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On each side of the chief were seated leaders of the Shungu-kedi' and Nays-a'di clans, and to right and left of these three men other representatives took their places, each according to his rank. When the first row had been filled the seating was continued in the second, third and fourth rows. In the meantime four introductory songs were sung.

When all the guests were seated a spokesman of the mourners delivered a speech, expressing gratitude for the favor rendered on

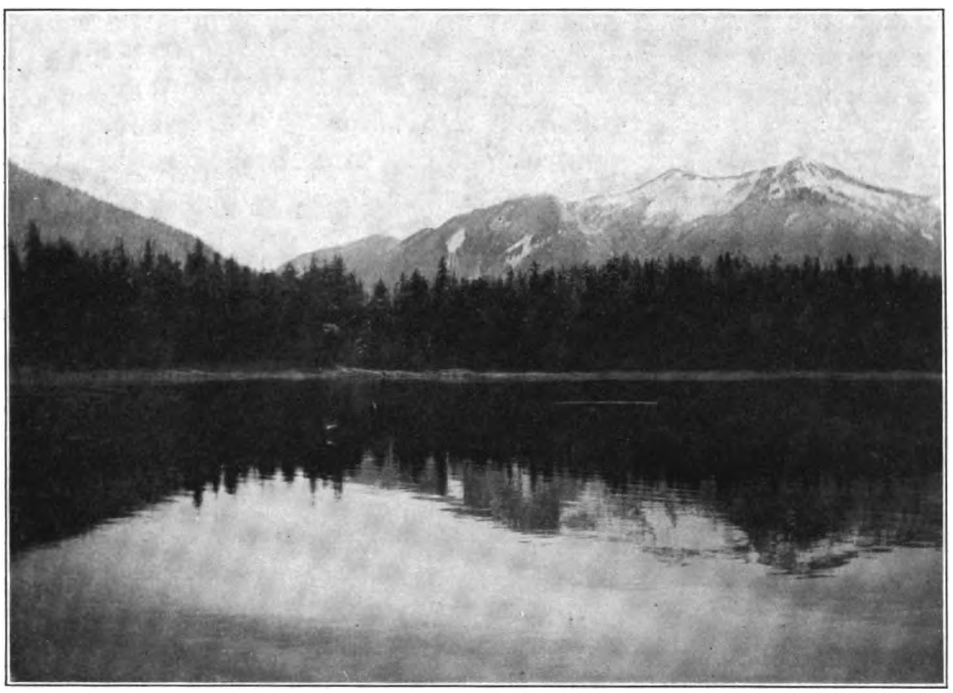

FIG. 40.—The scenery along the coast of Southeastern Alaska presents a striking contrast to that of Northern Alaska. See page 101 and Fig. 38.

the part of the opposite side. Meanwhile leaf tobacco was prepared in the Gana-tedi' ceremonial pipes, each pipe bearing a name pertaining to the crest animals. At the conclusion of his speech the spokesman requested that the Raven's servant-pipe be passed to the leading man of the Kaguan-tan, du-dji-de' (to his hands). In the same manner other pipes were passed to all the guests. Some of the tobacco was placed in a small dish which was held over the fire while one of the directors called out many names of his clansmen who had passed away; brave men and noble men who were worthy of being remembered on all occasions of this kind. After so many men

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had been named to it the dish of tobacco was dropped into the fire. I used to wonder how so many souls could each have his share of so small a quantity of tobacco, but I learned later that the spirits of all things that are sent to the land of the dead in this manner are supposed to grow.

Each mourner was then called on, to express his or her grief, which was expressed in each case by songs, sometimes preceded by brief speeches. The songs were very solemn, songs that were not sung on ordinary occasions. The mourners sang while the guests of honor smoked the large pipes until about midnight. Thus the soul of the dead one was supposed to have passed the first of the four stages of the road to the land of souls. This was repeated on four successive nights and during the four days the guests were called in regularly to partake of the foods of which the deceased man had been fond in his lifetime. No food at this time was passed to the spirit land other than what was taken from the widow's dish which was placed always at the edge of the fire for a slow consumption. This was supposed to pass to the departing soul of her husband.

In the early morning of the fifth day the funeral took place. The corpse was tied in the form of a long bundle and by means of strong ropes was hoisted up and passed out through the smoke-hole in the roof of the house. This custom was to avoid the living persons from passing through the same exit with that of the dead. The body was then carried to a place behind the town and laid down on a large pile of firewood which had been prepared on the previous day. The cremation then took place. As the fire blazed more songs were sung, songs composed with words signifying the passing of the soul through the final stage. When the body had been incinerated the burned logs were rolled aside, the ashes gathered into a marked sack and placed in one of the wooden chests in the family grave house.

After they had fulfilled what they considered a duty toward their opposite side, the Eagle participants were called in for the last time, to be paid for their faithful services. The property that had been contributed was then taken down and counted. The skins and blankets were distributed among the guests. A formal dinner was served immediately after the final payment, during which a small portion of the food was placed on the fire in the same manner as the tobacco.

In the event of a death among the higher castes the mourning

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ceremony was prolonged to eight days and performed with more elaboration and formality.

A few days after the conclusion of the ceremony the widow called together all the clansmen of her deceased husband and before them the estate including all personal effects was brought out. This property the widow offered to distribute among the clansmen, but the directors, contrary to her noble offer, requested that the property remain in its former state and a young nephew of the

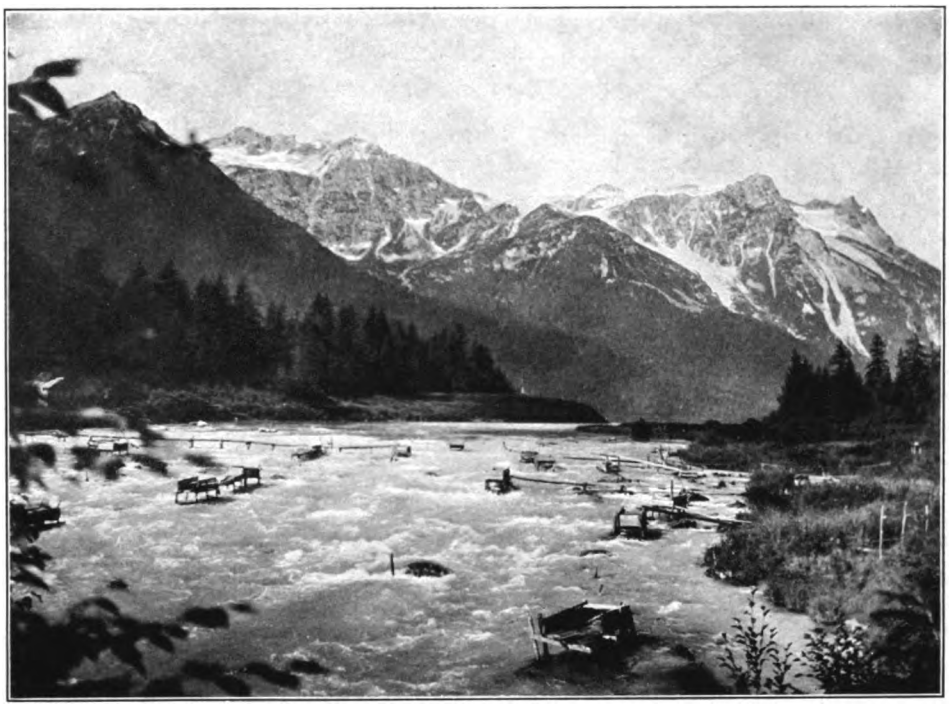

FIG. 41.—Native fishtraps on the Chilkat River.

deceased man was called out to take the title of his uncle, and with unanimous good wishes of the Gana-tedi' clan the widow entered to continue her life with the new husband. Of course all further obligations with regard to the erection of a memorial on the grave house of the rich uncle settled on the young man's shoulders.

It will be needless to go into detail of the call together ceremony which my family performed at Klaku-aun in 1915, because some modern influence is unavoidable. However, regardless of these changes, a real Tlingit is inspired by the speeches and by the solemn behavior of the aged members of my clan, the Kaguan-tan.

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I spent about two weeks at Klaku-aun, leading the life that I seemed to have left in the past.

It was not until the month of December that I decided to organize an evening story telling league at Haines. The superintendent of Alaskan schools permitted me to use the United States public school house in which our meetings were conducted two evenings a week by different native members.

The main object of the organization was to impress on the minds of the modern Indian children the former life of the tribe to which they belong. For my part I told of my observations on life among the Caucasians and the customs and habits of other progressive races, while the older members of the league gave, with the old time spirit, narrations on various historical events and legends relative to the natural former life of the Tlingit people. In order to retain the originality of these narratives, I took my notes in a phonetic form that I hope to translate and interpret some time soon.

In the early part of the spring I went to Wrangell, a town about three hundred miles south of us, with a view to obtaining an old specimen which I learned to have been in the possession of the head family in the community there. I arrived in Wrangell only to learn of the instant death of Shakesh the chief of the family.

I took advantage of being with these people, the early history of whom is in alliance with that of the Chilkat Tlingit. I managed to gain acquaintance with some of the old people, from whom I learned much about their early connection with other Tlingits who are found in the northern direction of them.

Before midnight after the close of my third day a small mail boat carried me away from Wrangell to the tribes on Prince of Wales Island. After a few days travel I came among the Tikanaw clan of the Raven side, the enemy in gone-by days of my own clan, the Kaguan-tan. These people had recently formed a comparatively new settlement in Klawalk village. I was received by an unexpected host, a relative who had married into the Tikanaw clan and became a missionary among them. To be sure these are peaceful times for them and my clan, but I did not expect that my people had sent a missionary to our old enemies.

On the day of my arrival in Klawalk the chief of the community asked me to give his people a talk on one of the subjects that I had offered my own people in Chilkat. There were differences of opinion as to what I should give. Most of the men were very much in

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favor of a talk on the modern life in the progressive world of the white man. The decision, however, rested with me and as it was yet forenoon I had time to decide before the evening. After our noonday meal my host offered to go through the village with me, that I might become acquainted with some of the old families. After brief interviews with some of the old men we decided on a certain subject that we thought would be appropriate for my talk.

It was obvious that the younger people, most of whom are half white, are very much fascinated by the ways and language of

FIG. 42.—Indians fishing with a scoop net in the Chilkat River

the white people and as a result had organized a society called "The Alaska Brotherhood," which is said to have been originated somewhere farther north as "The Alaska Native Brotherhood." Since the middle adjective "native" conflicts with their ambition to become white men, it was necessary for the Klawalks to omit it. Apparently the organization was well represented at the meeting, as I had all that I could do to come through with a talk on "Preservation of natural character."

I waited one week in Klawalk for the mail boat, during which time I took a few notes and made a brief study of Tlingit foodstuffs of this vicinity.

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From Klawalk I paid a brief visit to the Haida tribe, who are found at the southern end of the island. Our boat made a hurry call at Hydaburg, a new settlement of the tribe. Just before we left the place I met a Tlingit woman and from what I gathered from her, these people had only recently deserted their old village and moved to this place with a view to beginning a new life which necessitated abandoning all signs of the old Haida customs.

A few hours found us at Howkan, a deserted Haida village. Only one native family and about three white missionaries were in the old village. After I took photographs of some old totem poles that are still standing, I paid a hurried visit to the family. The wife happened to be a Tlingit who appeared to enjoy our brief conversation in our mother tongue.

After two weeks' visit among the tribes of Prince of Wales Island I landed in Ketchikan, a town of about twelve hundred inhabitants, which is said to be supported by nearly all the new industries of the territory that lure native tribes from the many surrounding villages. Most of the natives here appeared to me to be merely existing in composite with a populace of various races of the earth.

Ketchikan was formerly an ancient Tlingit village, the remains of which may yet be seen at a certain section of the present town, indicated by a few memorial totem poles standing in front of some native family houses, but these relics are almost enclosed by new rustic buildings of new settlers. I went to call on native families whom I had known to live there, but to my disappointment I found their doors closed and have learned since that my people had moved out some months past to live in a boarding house.

It is evident that the natives in this community can no longer hold on to that which has been their own from time immemorial.

Not until I learned that all the older people were out of town for their summer camps did I give up the idea of trying to obtain some information from Ketchikan. On the following morning I boarded the first northbound boat and in twenty-nine hours I arrived in Juneau, the capital of Alaska since 1906. The population here is about three times as large as that of Ketchikan and principally supported by mining. After engaging a room in one of the hotels I went to visit the Indian village which I had known in my boyhood days. When I came in view of this ancient Aku-quan village it appeared to be very much like a live mouse confronting a hungry

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cat. The white settlers have formed a circle around it: on the hillside in the rear of the old village are built on high stilts many new rustic buildings with their back porches protruding toward the rear gables of the old native houses, while the former canoe way is bridged by a broad boardwalk with rows of shacks.

I found the natives in the old village in no more prosperous condition than those of Ketchikan. I called on some of the families, one or two of which seem to be content with the attics of their shacks, while the lower rooms were rented by other families who

FIG. 43.—The Indian town of Chilkoot.

apparently had missed a space for their own shanties. The men were too occupied to heed one like myself with old fashioned ideas. If not preparing firewood they would be packing lunch pails getting ready for the approaching hour on which they must start to do their turn in one of the gold mines. In one of the upper rooms we were obliged to carry on our conversation not louder than whispering for fear of awaking someone in another part of the house who may have been enjoying a nap that he had missed during his night shift at the diggings.

From what I gathered, it is obvious that the Aku-quan have

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yet to realize the approaching displacement of the old village which had been so dear to their forefathers, if the press for gold continues.

After four whole fruitless days among the Aku people my boat arrived and for the second time I retreated in my efforts to acquire information that may be of some value in my work.

When I returned to the Chilkat people, I fully appreciated, for the first time, the differences under which the North Pacific Coast tribes exist. We Chilkats, unlike some of the others, are as yet unnoticed, thanks to the worthless ores in the mountains surrounding our villages.

I arrived in Chilkat just in time to join in the eulachon fishing season. The primitive methods of catching and extracting the oil from the fish are still retained by the Chilkat people. The fish are brought to shore by canoe loads, emptied into pits made on the bank and left to putrefy. Each pit holds about four canoe loads of a ton capacity and there are from one to three pits to each household.

Eulachon oil is said to have been put up in much greater quantity in former times when there was much more demand for it, but since the present generation seems to be satisfied with the fair substitute of lard and bacon grease, the preparing of the ancient lubricator is left mostly to the older members of the tribe, who still favor the superiority of the oil.

After the oil supply had been placed in store most of the campers moved down to the mouth of the river, where they camped only for a few days, catching the early silver salmon with harpoons. The trawling method has been adopted by most of the Alaskan Indians, but the Chilkat fishermen seem to have more pleasure in lying in wait with their long handled spears on the Chilkat tide flats for the ripples indicating the upstream bound of the king salmon.

Many changes, of course, have taken place in our preparations for the main food preparing season of the year. Instead of setting salmon traps and making gaff hooks we line and mend our gill nets, and instead of overhauling canoes we now spend most of our time with motor engines. Regardless of all these modern conveniences, it is strange to say that the primitive schemes are holding their own among the Chilkat people.

In the early part of the summer when the Indians began to settle on their various hunting grounds, I moved out to camp with the Chilkoot families in their village, about nine and a half miles north of Haines.

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I acquired a small gasoline launch which enabled me to make my trips on calm days to other camps and come to town for my supply of provisions.

Here again I lived the life which I desire to illustrate: performing the daily duties of my people and listening to their after day's work stories, in fact, back to my boyhood days once more. In spite of our frequent associations with the white people, these old families, to my favor, took much pleasure in expressing their old time feelings and living the old life over again.

The first snow was my sign to move my camp outfit down the Chilkoot rapids and make my way back to our winter quarters.

L. S.

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A BABYLONIAN TABLET ON THE INTERPRETATION OF DREAMS

REVELATION of future events by dreams formed an important discipline in the ancient science of divination. The subject was treated at great length by the professors of Greek divination, Artemidorus of Daldis having devoted five books to this subject alone under the title *Onirocritiques*, or the Interpretation of Dreams. The Greeks regarded the psychological phenomena of dreams as direct revelations from the gods, provided always that the mental preoccupations or physical condition of the dreamer did not interfere to entangle the soul in mortal influences. Dreams are the sons of night and the brothers of sleep, said Hesiod. The classical peoples generally distinguished the oracular source of dreams from all other means of divination. The dark-winged spirits of dreams came to men only in the night, hence their native land was the shades of the lower world. They are the children of Gaea, or Earth, said Euripides, and in this view the mystic Pythagoreans concurred. All other revelation fell under the patronage of Apollo, god of light, he who sees the secrets of all things.

Therefore in dreams it is the deities of the lower world that reveal the future, whereas hepatoscopy or divination by the interpretation of signs on animals' livers, astrology and other favorite methods of disclosing the intentions of the gods fall to the patronage of the powers of light.

In antiquity Babylonia received universal recognition as the home of the oracular sciences. Here astrology and liver divination attained a development and influence unparalleled. Cuneiform literature is already equipped with an extensive corpus of texts devoted to these mystic subjects which led on the one hand to the scientific development of astronomy and on the other to the study of anatomy. Extensive works on teratoscopy or the interpretation of extraordinary events, lecanomancy or divination by omens taken from the movements of liquids in cups, are known. Up to the present, however, only fragmentary documents of the great cuneiform series on oniromancy have been recovered; these belong to the Asurbanipal Library, excavated at Nineveh and now

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in the British Museum. The tablets on which it is actually stated that the phenomena described were seen in dreams are not numerous. But a number of oracular tablets have been classified as dream omens, since their contents point obviously to that conclusion. For this reason the writer has classified a remarkable tablet in the University Museum as one of those on which the Babylonians of the time of Moses, or the Cassite period, wrote down their ideas concerning things seen or done in dreams. The tablet, still in almost perfect condition, belongs to about the fifteenth century B.C. At the end the scribe has written the note "Altogether there are 86 lines (or omens)."

FIG. 44.—Dream Tablet. (Obverse.)

The sun god Shamash in Babylonia, like Apollo among the Greeks, presided over the mystic disciplines of divination as he did over the institution of laws and their application. Although there is a remnant of evidence to connect the land of dreams with Enlil the earth god in Babylonia, nevertheless this ancient association disappeared and under the influence of the more popular oracular methods of Shamash, this mystic function of the seers came also under the patronage of the great god of light. The goddess of dreams is the daughter of the sun god, said the Sumerians, and a god of dreams was an attendant in the courts of the sun. In the history of Sumer, Babylonia and Assyria the records have preserved accounts of royal dreams in which the mother goddess Ishtar sometimes appears in person before the king, announcing plainly the course of events.

Early Hebrew tradition also preserves dreams in which the Hebrew God himself appeared to Jacob, Laban and Solomon, grant-

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ing them direct oracular instruction. Visions of that kind required no interpretation and were considered direct messages from the gods. The earliest dream vision recorded in cuneiform is the famous symbolic scene which appeared by night to Gudea, Sumerian priest king, who ruled at Lagash about 2700 B. C. In this dream, which appears to have occurred in the temple itself, an example of incubation, the king sees men and women moving before him with various objects in their hands or supported on their heads; an ass crouches beside one of the figures. These figures and their deeds are all interpreted by the goddess Ninā in symbolic terms whereby the king is informed that the gods have commanded him to build a temple. Here the interpretation by the goddess Ninā is perhaps really the work of a diviner attached to the cult of that ophidian deity. At any rate, in this the most ancient example of oniromancy, a deity originally connected with the earth and the lower world appears as the interpreter of dreams.

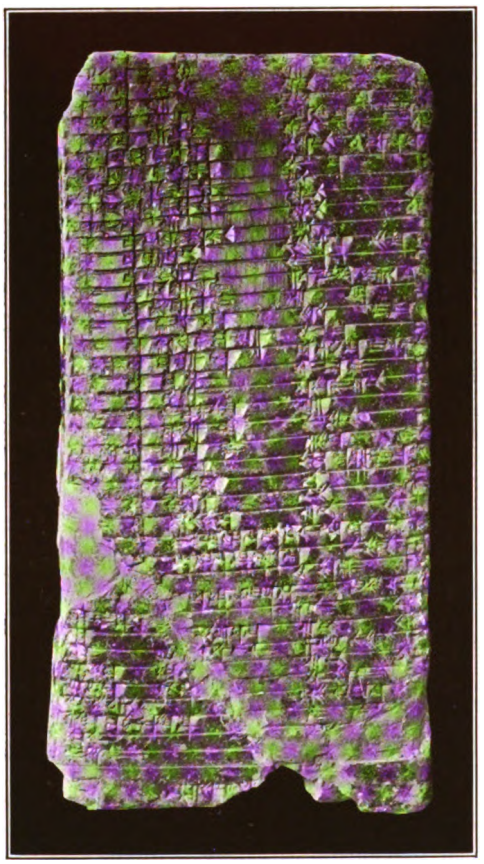

FIG. 45.—Dream Tablet. (Reverse.)

Oniromancy has been persistently connected with necromancy or revelations by the apparition of the souls of the dead, who usually appear in dreams. The connection of the two ideas is essential to the conceptions of dreams as messengers of the infernal deities in whose domains also dwell the shades of men.

Ordinarily, however, visions of sleep are not direct revelations, but their significance rests upon obscure symbolism and historic conventions. For example, in Babylonia, as in Greece, the right hand was the side of good luck and the left of misfortune, since

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these people in taking auguries usually faced the north.[1] In this way the right hand is toward the lucky east and the left hand toward the unlucky west. This principle of orientation is employed in the tablet in the University Museum to interpret certain things seen by a dreamer.

Thus lines 27–9 of this tablet read as follows.

"If he gaze toward the right his adversary will die.
If he gaze toward the left his adversary will overcome him.
If he look backward he will not attain his desire."

Here we have three interpretations of actions seen in a dream all based upon the widely accepted principle of the lucky east, the unlucky west and south. The negative side of this principle appears in lines 47f.

"If his right eye flow, sickness will appear.
If his left eye flow, his heart will be glad."

Here the interpretation is made on the principle that a defect of or anything disadvantageous to the right means bad luck, and anything disadvantageous to the unlucky left means good luck.

The same principle appears in lines 60f.

"If he bites his tongue at the right they will oppose him with enmity.
If he bites his tongue at the left his heart will rejoice."

According to this tablet the upper lip is the side of good luck and the lower lip of bad luck, that is up is propitious and down is sinister. So we have in lines 52f.

"If he bite his upper lip joy will not be given him."

That is injury to the lucky part is of ill omen. But—

"If he bite his lower lip he will be blessed."

That is injury to the unlucky part points to a propitious future. Our tablet in lines 20f regards the sky as unlucky and the earth lucky.

[1] See FROTHINGHAM, *American Journal of Archæology*, 1917, p. 60. So far as Babylonian orientation is concerned his conclusion is not sustained by the tablet here described. This Nippur dream tablet gives proof of the lucky right and the unlucky left. The omens taken from births and the liver almost invariably follow the principle that a defect on the left of an organ or part of an organ means good luck, and a defect on the right means bad luck. This proves just the opposite of the generally accepted view of the lucky left and unlucky right in Babylonia. A defect on the lucky side is of evil portent, and *vice versa*.

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"If he look toward heaven there will be his undoing.
If he look toward the earth he will be blessed."

The principle upon which this interpretation is made may possibly revert to the ancient antagonism between the gods of light and darkness, of day and night. Since this tablet deals with dreams which were originally regarded as revelations sent by the underworld deities, for the savants of oniromancy earth would here be lucky and heaven unlucky. Perhaps, however, some other unknown principle obtained, or some ancient example of this kind may have become the norm for all future interpretation. That is, perhaps in antiquity some king in his dream saw himself looking heavenward and it turned out to be an evil omen. These specific cases if noteworthy were recorded in the books of the Babylonian diviners as in Greece. Probably a large number of the interpretations were based upon these ancient observations.

The following forecasts in the tablet are based upon simple suggestion of ideas or analogy.

"If a hunchback seizes him, a curse will smite him.
If he strangle his nose, there will be his debasement.
If he flays himself, there will be his debasement."

On the other hand, we have in the following line a possible example of a play in etymology or double meaning of words, a method so frequently and absurdly employed in the interpretation of Greek dreams. For example, according to Greek oniromancy if a man sees a pea (*pisos*) it is of good omen because pea signifies confidence (*pistis*).[1] I am unaware of any etymological suggestions in Babylonian quite so absurd as this or many others employed in Greek, but interpretations of this kind do occur. Line 34 of the Museum tablet has the following: "If a man presses his nose," the omen is good. Here the word for press (*mušŝudu*) is probably associated with a word from the same root (*mušŝidu*) which means abundance. On the other hand, this root yields a more common word (*mašiddu*) which means oppression, tyranny, and hence in other omens the same verb is taken to indicate an evil omen.

A good example of the principle of pure analogy in prognostication is afforded by line 23 in this tablet.

"If when he discourses he looks at the ground men will speak lies about him." Now one associates mendacity with lack of frank

[1] See BOUCHÉ-LECLERCQ, *Histoire de la Divination dans l'Antiquite*, Vol. I, 314.

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behavior in speech and if the dreamer sees himself or another behaving thus in a dream the omen indicates that others will behave so toward him. In the same way whispering is associated with clandestine conduct, wherefore if the dreamer whispers he receives the following omen:

"If he whispers shame will be brought upon him."

Thrusting out the tongue has been universally considered bad manners and consequently of evil omen in dreams. Line 67 interprets this act as of evil omen.

"If he lolls his tongue, goodness of heart will not be granted him."

The science of the diviners, however, not infrequently incorporates prognostications and solutions of signs whose principles are completely obscure to us. According to this tablet, biting the tongue in a dream indicates that the man will acquire power and wealth. Rubbing the lips either on the right or left side is of happy omen. On the other hand, rubbing the neck (?) or back (?) indicates that he will be ill. These are probably ancient observations and facts handed down from one generation of dream interpreters to another and incorporated in the text books on oniroscopy.

The hunter's bow being connected with conquest and the chase in real life was a prophetic symbol of good omen in the Assyrian books of dreams.

"If he carries a bow his hand will obtain booty.
If he carries a bow and lets it fall he will obtain despoilation for himself."

Seeing the ghost of the dead in dreams invariably indicates calamity and death for the sleeper. As in Greece, so also in Babylonia the books of divination assign specific influence to each kind of grain, herb and tree. The carrying of the fruit of the date palm indicates sorrow. If one dreams of carrying salt on his head it is of evil import. On the other hand, carrying barley in the street indicates that the dreamer will overcome his adversary. The reasons for these prognostications are entirely unknown and the mystic books contain no elucidation. However, the two following omens are self-evident:

"If he carries beer in the street his heart will be glad.
If he carries water in the street his sins will be forgiven."

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The principle of association explains the interpretation put upon these two substances. Liquor was naturally connected with exaltation of the spirit. Water in Babylonian religion was the principal purificatory substance employed in the magic rituals of atonement. The interpretation of the vision of carrying water was, therefore, suggested by the rituals of expiation.

The tablet in the Museum is the earliest known representative of the Babylonian works on the interpretation of dreams and indicates sufficiently that the Babylonian diviners had already adopted most of the principles which we find in the more extensive but later works of the Asurbanipal Library of the British Museum. Their doctrines spread throughout western Asia and were known to the Hebrews. The story in Judges VII. 13 of the soldier of Gideon will cause every Assyriologist to recall the similar incident in the life of the soldier king of Assyria, Asurbanipal. Gideon's depleted army encamped by night over against the multitudes of Midian. And a soldier had a dream. "A cake of barley bread tumbled into the host of Midian, and came unto a tent and smote it that it fell." And the soldier's companion interpreted it to mean that Gideon's army would annihilate the foe.

Asurbanipal, in the middle of the seventh century B. C., about to advance against the Elamites, appealed to Ishtar, goddess of battle, in the night. And "a certain seer lay down and dreamed an ominous dream." And he saw the goddess arrayed for battle with bow and quiver standing in audience with the king, saying, "Look thou up for making battle. Whither thy face is set I advance." And the seer heard the king reply, "Where thou goest, with thee I will go, oh queen of queens."

The Hebrew prophet Jeremiah censured the faithful of his time (first half of the sixth century) for consulting the wizards and dreamers. Nevertheless the belief in this mystic phenomenon as somehow connected with the spirit world survived into the New Testament period and has not been entirely banished from the popular beliefs of today.

S. L.

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A VOODOO DRUM FROM HAYTI

DURING the first three centuries of colonization of the New World many of the native customs and beliefs of West Africa were introduced and retained by the slaves. Of these, fetish worship with considerable development or modification survives even to the present time. In Hayti, as the Voodoo cult with its human sacrifices, this worship is the most primitive and degraded in the two Americas.

Attention was drawn to the cult recently by a Voodoo priest's drum presented to the University Museum by Mr. J. Maxwell Bullock, who had received it from Major Alexander Williams of the United States Marines. During the insurrection in 1916 in Hayti it had been confiscated and its head punctured because the beating of a drum was the signal to assemble the Voodoo devotees and to incite them to a religious race war. The drum is carved from a log about two feet long and tapering from ten inches down to five inches in diameter. Over the large end is stretched a rawhide head which is held tight and in place by means of five projecting pins and a piece of native-made rope.

Voodooism or Voodoo has been somewhat modified in the West Indies and North America. In Hayti on account of the negro rule and freedom of religion the original customs and beliefs have been retained, and, beginning with the insurrections against the whites in 1790, an element of racial hatred has been added. In Cuba the early Roman Catholic Church had allowed the Voodoo worshipers some latitude which has been enlarged under the republic until now many of the negroes are strongly tainted with this racial hatred. In Jamaica the strictness of the English authorities, who have combated the practices of the cult since 1640 has modified it into a form known as Obeah. In Louisiana the term Voodoo has been modified to Hoodoo, which has some connections with the early cult. Elsewhere in the United States, especially in large cities or in communities where there are many ignorant colored people, there are some who serve as hoodoo men or conjurors and sell all sorts of charms to the superstitious blacks.

In order to get an idea of the importance of the Voodoo or

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Obeah man, a few beliefs and customs of the negroes of Jamaica and Hayti must be given. They believe that the body has two spirits, a good one that returns to Africa and a bad one that in the form of a spirit or "duppy" remains in the vicinity of the dead. In order to keep these duppies from settling about the house in case of a death, all of the standing water is thrown out. Food and rum are provided to propitiate the dead man's duppy and furnish food for the good spirit on its journey. This food and drink furnish material for a wake which must be repeated nine days later.

At child birth the infant is protected by a green necklace emblematic of the sacred green snake. In some places, at the present time, a Bible and a pair of scissors, opened to form a cross, are placed under the child as additional protection. The child is not taken out of the house until it is nine days old, when it is strong enough to withstand the duppies. These duppies have solid bodies and are unable to go through walls like the ghosts of more civilized peoples. On this account the negroes stop up all of the cracks of the house at night to keep the duppies out. While asleep clothes are worn over the head, as it is here that the duppy prefers to catch a sleeping person. After dark the duppies are about, and the blacks will not venture out of doors except in crowds, and then with lights and a great deal of noise to frighten the spirits away.

It is the Obeah or Voodoo man who knows how to combat the duppies, which he can sometimes bottle and compel to do his bidding and destroy an enemy. With his knowledge of sorcery and witchcraft he is able by means of incantations, weird ceremonies, cabalistic drawings and charms to perform his special functions and maintain a high standing in the community. A good Voodoo man has a marvelous knowledge of medical and poisonous substances and is cunning enough to be conservative in his claims for his medicines and charms. To him the negroes go to be cured of their disorders, to get help to avenge themselves on some enemy, to get aid to win the favor of a member of the other sex, to discover and punish a thief or an adulterer, and to predict future events. From him are to be purchased charms consisting of bottles, old rags, egg shells, blood, feathers, parrots' beaks, dogs' teeth, alligators' teeth, grave earth and rum. These charms will bring luck and also protect the owner from evil. By the negroes the Voodoo man is held in such fear and awe that in case a man learns that a Voodoo has cursed him he will quite likely pine away and finally die of fear. Also, if a thief finds out

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that the Voodoo man is after him he will usually confess and make restitution.

In Hayti the basis of Voodooism is the frank worship of a sacred green snake that must be propitiated in order to keep off the evil duppies. The meetings of the cult are held at night about bonfires in secret places in the forests. The presiding official is an old man "papaloi," or woman "mamaloi," who has gained renown as a Voodoo sorcerer. After assembling, all present take an oath of secrecy and then the priest exhorts them to remember the sacred green snake and to hate the whites. Prayer is offered to the divine serpent that is supposed to be present in a box placed near the fire. Then follows the sacrifice of a cock which the papaloi kills by biting off its head. With a great deal of drumming and incantation the blood is smeared over the faces of the worshipers and drunk by the officiating priest. A goat may be sacrificed with similar ceremonies. After the goat there might be a human sacrifice, as was reported by a French priest. He said that it was the wish of some of the devotees that a "goat without horns," that is, a child be sacrificed. This was done, and the flesh, raw or partly cooked, was eaten by the members of the cult.

The incessant booming of the drum, the sight and taste of blood, and the great amount of rum drunk cause a religious form of hysteria to sweep over the audience. At the close of the sacrificial ceremony the worshipers begin a dance called the "loiloichi," or stomach dance, which is well known in West Africa. The dance gets wilder and wilder and more degraded until it ends in an orgy of the worst description which lasts until daylight.

The French minister to Hayti in 1860 wrote an account of a woman's having been put to sleep by a narcotic drug and buried. At night she was exhumed still breathing. She was then killed and her brains, heart and lungs removed, presumably for the celebration of some Voodoo mystery. In the investigation that followed a mamaloi was arrested who confessed and offered to assemble the authors of the murder by beating her drum in a particular fashion. This offer was not accepted on account of the number of important personages known to be involved. This fact serves to show the importance attached to the drums and the wisdom of the present day authorities in removing them.

B. W. M.

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THE AMAZON EXPEDITION

The Tapajos

OUR next long journey was made up the Tapajos River, to the state of Matto Grosso, where the São Manoel and the Juruena unite to form the Tapajos. Here we visited the last remnant of the Apiacas, once a large and ferocious tribe, speaking a dialect of the Tupi language. At the time of the Brazilian war with Paraguay, 1866–71, the state of Matto Grosso was cut off from trade to the southward, and for a few years the people were obliged to get their supplies from the Amazon valley by way of the Tapajos and the Juruena rivers. At that time the Apiacas were numerous and were used as canoemen on these rapid rivers, where the white men and their negro companions would have been helpless without their assistance. From their physical appearance at present, it would seem that considerable mingling of blood took place at that time. They resent the suggestion, but the short curly hair of some individuals and other physical features so foreign in appearance can best be accounted for in that way. From their own account they were formerly nude cannibals, eating the bodies of enemies killed in warfare. Today, while the flesh eating trait has disappeared, they wear clothing only when they go among the rubber gatherers. Their chief is the captain of a large motor boat, which carries rubber down the 400 or 500 miles of rapids to the large steam launches in the quiet water below. He has that quiet self command common in the Indian and so lacking in the Brazilian laborer. This self command is very necessary for navigating the dangerous rapids. To the Indian there are no dangers, because he steers his bark easily and safely without accident. He never losses his self possession, is never nervous, and always does the right thing at the right time. His canoe shoots by within an inch of the rock which might have dashed it to pieces, but he knew the inch was all the room he needed and had his canoe and men in such perfect control that there was no danger. At such times the slightest nervousness on the part of any of the crew would prove fatal, but no one is ever nervous. The traveler with such companions soon develops a confidence which allows him to enjoy the thrills of the passage.

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What I have said of this fellow applies equally well to all the canoe Indians. Their absolute absence of "nerves," and their complete self possession under all circumstances must be admired by every one. This self mastery which enables them to prevent showing surprise, delight or appreciation, has often been called stupidity by the superficial observer. Two of the boys with us for five months on our journey through the new territory of North Brazil and down the Corentyne had never before left their homes in the savannahs, and had never worn clothing. At the end of our long canoe journey we put them aboard a steam launch; then a motor boat; then in an automobile for a rapid night ride; then aboard a train, and upon arriving in the city of Georgetown they were dressed like white men; but through all these experiences no one could tell from their outward expression that everything was not as customary to them as it was to us. They did not look unnatural in clothes, nor appear uncomfortable or awkward. When we were with Indians who had never before seen white men they showed no nervousness, with but two exceptions. Even when we fired a twelve gage shot gun, expecting to see them jump, they never twitched a muscle—and they had never heard the report of a gun before. I am aware that persons of a different temperament will think such self mastery an impossibility and attribute the facts to a low state of nervous susceptibility.

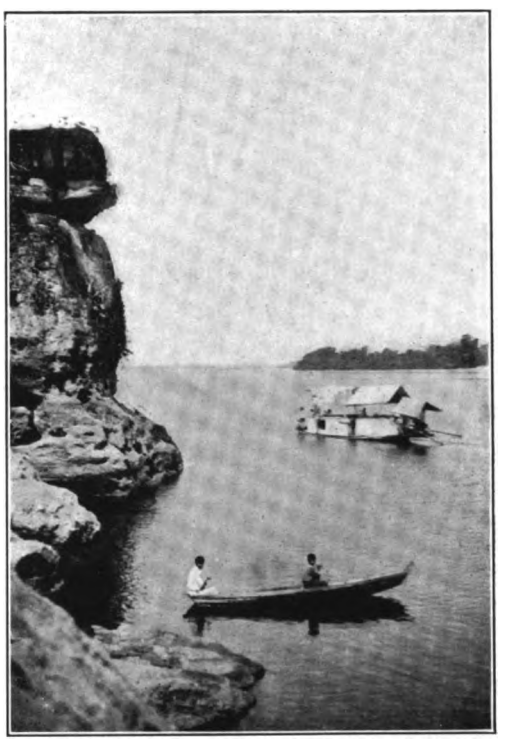

FIG. 46.—Our canoe on the Tapajos with five tons of rubber aboard.

The Tapajos is the most beautiful of the Amazon tributaries. A short distance above its mouth it broadens into a bay so large that one is able to get a natural horizon for astronomical observations. The water is perfectly clear and its great depth gives it the color of the sea. For more than a hundred miles of its lower course to the

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first rapids it is bordered by a high forested plateau. There are mountains every now and then, rising to a height of several hundred feet. The upper river, for a distance of five or six hundred miles, flows between steep mountains, in a series of rapids, with short stretches of quiet water between. The most difficult parts of the river to navigate in the dry season are the shallow places; the river spreads out to a width of three miles and flows over ledges of rock, with no deep channels. The most rapid places are not so dangerous when one is acquainted with the river, because the water is very deep. Although it runs at the rate of seven or eight miles an hour, the channel between the large rocks is practically straight and ends in quieter water.

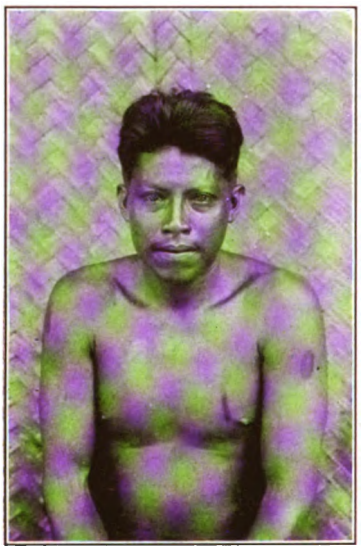

FIG. 47.—Apiaca Chief.

The best rubber from the whole of the Amazon basin comes from this region. It must be transported down through the rapids in large canoes, carrying five or six tons each. Some of these canoes have motors attached at the stern. These are of great assistance in quiet water, but it is necessary to carry a crew of men because the motors are often broken and the canoes caught among the rocks in the rapids. Our canoe was on the rocks many times. Twice we were forced to run ashore, unload, and repair the canoe. When a canoe hits a rock in the rapids, there is great danger of its breaking, not only because of its weight and the force of the current, but also because of the necessity of running the motor, or paddles, at full speed. This must be done in order to guide the canoe among the rocks. A drifting canoe cannot be guided. The journey to Matto Grosso, which requires from four to six weeks in a loaded canoe with paddles, can be made in twelve days by the aid of a motor.

MUNDURUCUS

The banks of the Tapajos were formerly occupied by the notorious "head hunters" or Mundurucu Indians, but since the coming of the rubber gatherers, the Indians have, for the most part, retired to the highlands about the heads of the small streams to the eastward. They occupy about half the region between the Tapajos

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and Xingu rivers north of the Saô Manoel and south of the Itavira. This interior region was supposed to be a great grassy plain extending from near the Amazon to the great *campo geral* of Central Brazil. One is told in Santarem that he can ride on horseback from there south to Cuyaba, the capital of Matto Grosso, and that a railroad could be built with little difficulty to connect these two towns, but no one has ever been through the country. Ten miles from Santarem the dense forest begins and continues to Itavira where it gives place to a semidesert area which continues at least

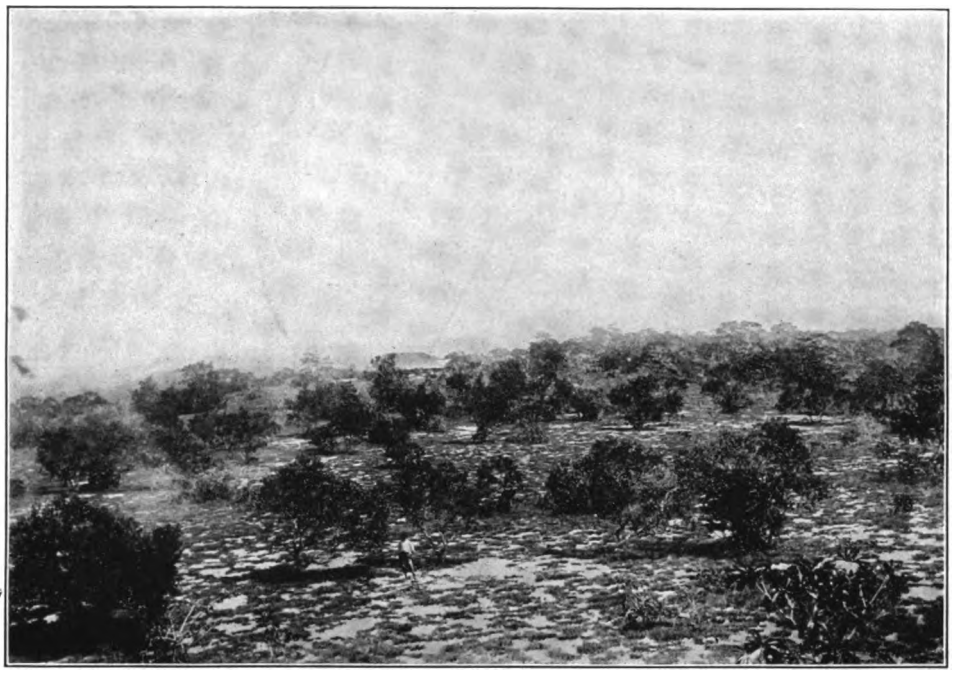

FIG. 48.—High land between the Tapajos and the Xingu.

to eight degrees south latitude. This latter area west of the divide is occupied by the Mundurucus. No one has been across to the Xingu River and nothing is known of the eastern area. We had hoped to go, but the Indians have never crossed the divide and they say that no one lives to the eastward. They hunt to the mountain tops, but never go beyond. As the country was very rough and mountainous, and there were no trails leading to other tribes, we returned to the Tapajos. We went to the last village which was farther than whites had gone before. The land is semidesert because of poor soil not because of lack of rainfall. The Indians

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clear fields on the sides of the forested mountains and near the streams, but live in the open a long way from their water supply. Some grass grows in the lowlands and a few cattle might find pasturage. Along the Tapajos lower down there are a number of grass covered hilltops, but not of great extent. We found tracks in the sand made by the emu, the South American ostrich. The Indians see it occasionally. This is the farthest north the emu has been observed and may prove that there is open country all the way to the *campo geral*. Forests grow along the larger streams but not on

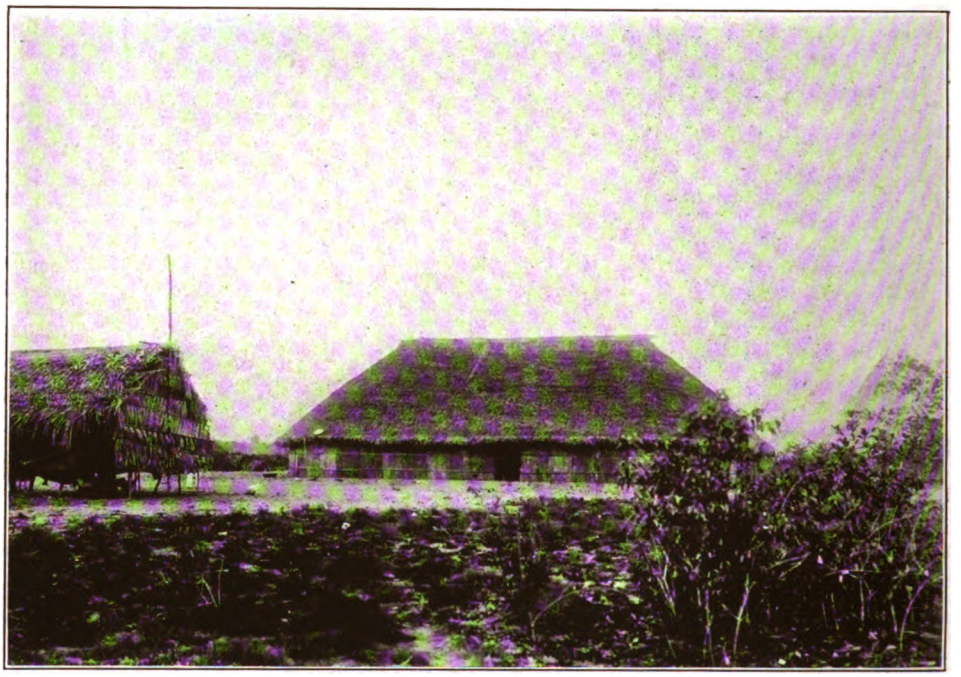

FIG. 49.—Mundurucu village, Kapikpi, showing men's door and men's house.

the high land. A railroad would be difficult and expensive to build and would find little along the way to support it.

The Indians live in large communal houses with several families together. Each house has two doors, one for the men and one for the women on opposite sides of the house. In front of the men's door, at a short distance, is the visitor's house, or men's house, where the men do all their work and where the unmarried men sleep. Visiting women are taken into the large house. Each family has a section of the house for its own use, including a fireplace. There is a head man for each house, and a chief over the whole tribe, which now numbers 500 or 600.

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Each house has a medicine man, and there is also a chief medicine man, who ranks next to the chief of the tribe. According to the Indian belief, diseases are caused by an evil genius, "bokaid-pot," in the village. The medicine man knows who this person is, and if many deaths occur or there is much sickness, he tells the chief. Thereupon the chief has the man killed. While we were there a boy about fifteen years of age was killed by two men of his own village (August 7, 1915) by order of the chief and upon the recommendation of a medicine man. He was strangled by means of a cord pulled

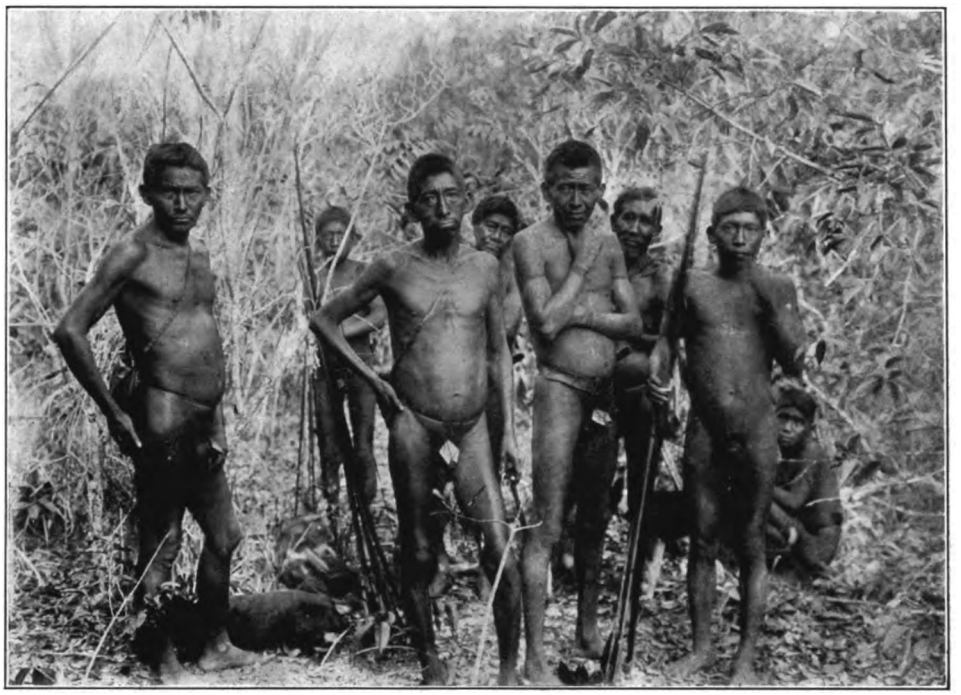

FIG. 50.—Mundurucu Hunters.

tightly around his neck. The next morning the body was cremated after the chief had gone down to see it. All other persons, when they die or are killed by accident, are buried. They kill about one person a year in this manner. Our informant had helped to kill a man the year before. The man accused knows he is to be killed and offers little resistance. The chief appoints two men to do the deed at the first opportunity. They may select their time but cannot escape the duty. In the recent case the boy knew that he was blamed for the continued sickness at his village and was expecting to be killed, but he did not know who had been appointed by the

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chief to do it. The two men got their orders on August 4th, but a favorable opportunity did not present itself until the seventh, when they found the boy at the river side eating turtles' eggs. They asked him for some eggs, which he gave them. After they had eaten them one of the men asked him for more and when he turned to get them the man seized him from behind, threw him on the ground and held him until his companion brought a cord with which they strangled him. Then they went to the village and told the chief. The medicine men know who these "bokaidpots" are even before anyone

FIG. 51.—Running the Coataquara Rapids, Tapajos River.

is sick, but do not tell who they are. One of them told us there were two in his village, but said he would not tell who they were unless much sickness occurred and many deaths. He does not tell the person himself, but the other people, and they shun the individual and will have nothing to do with him. Thus he knows his doom.

ORIGIN OF THE PEOPLE

In the beginning, the Creator, Karusakaibŭ, who then lived on the earth, made the animals, plants and mountains, but did not make the first men. He had a son who never had a mother. He

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also had a companion, Dąjiru, who assisted him and looked after the son. Dąjiru offended his superior, so he ran away and hid in a hole down in the depths of the earth. After some time, Karusakąibŭ found the hole, blew into it and stamped his foot on the ground. Dąjiru came out with the rush of air. He told Karusakąibŭ that there were many people down in the earth. So they made a rope of wild cotton and dropped the end down into the hole. The people at once began to climb up the rope, but when half were up, the rope broke and left the others below where they continue to live. The sun passes through their country from west to east, and gives them day when we have night. The moon also goes through their country, while we have dark nights.

Human Sacrifice

The people had no foods except wild fruits. The Creator told them to make a field and burn it clean. When it was ready, he took an old woman and buried her alive in the middle of the field. In a short time peppers grew above her body, and all kinds of food plants sprang up in the different parts of the field. Now they make no sacrifices in the new fields nor at planting time.

Destruction of the People

For some unknown reason, the people were all destroyed, not by a flood, as among the Wapisiana, but by fire, which came down from the sun and burnt up everything. Even the water evaporated. (Their traditional home was in this semidesert region.) After five days, the Creator, who had previously gone up above, sent a vulture from the sky to see if the earth was cold, but he found the burnt bodies of men and remained to eat them. The Creator after waiting four days sent a blackbird but he found the charred buds of the trees, and did not return. After another four days, the Creator sent down the dove, who carried back some earth between his toes and thus the Creator knew that the fire was out. Then the Creator came down and made men and animals of white clay, the kind which is used in making pottery.

Animal Stories

The Indians have many animal stories, some of which are similar in the main idea to our own. The one that pleases them

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most is the following: A man crossing a field saw a tapir standing with one foot on a toad. The toad's eyes were bulging out from the weight of the tapir. The man said, "What are you doing there, Mr. Toad? Those are fine looking eyes you have." The toad was angry and said, "They are my eyes, not yours; go along about your own business." The tapir finally stepped off, but a hawk, flying over, saw the toad and gathered him up. The hawk then happened to fly over the man, who, hearing the noise of his wings, looked up, saw the toad in the hawk's claws and called, "Hello, toad, where are you going now?" The toad replied, "I am not going anywhere, I am being taken." "When are you coming back?" asked the man. The toad replied," I may come back some time, but I don't know when I'll get there."

The Fox and the Vulture

One day a fox found a vulture feeding on some decaying flesh and said to him, "That smells so bad it cannot be fit to eat; I will make you some good food." So he went home and made a mingau, a thick soup of cooked ripe bananas, and took it to the top of a rock and called the vulture to dine with him. He poured the soup out on the rock and asked the vulture to eat. The vulture began to pick but could get nothing, while the fox licked it up eagerly. "Why don't you eat?" said the fox. The vulture said, "You lick it all up with your tongue, while I can only batter my bill against the rock. I will get even with you some time for this." At another time the vulture met the fox and said to him, "Come up into the sky with me and see around all over the country." The fox said, "I cannot; I have no wings, I cannot fly." "Well," said the vulture, "I will fix you up so you can go, but we shall have to start very early in the morning." "All right, I will go," said the fox. The vulture went away and got some wax from a tree. In the morning he smeared it all over the fox while it was warm and soft. He then stuck feathers into the wax until the fox was so light that he floated away to the sky with the vulture. He enjoyed it greatly and went up very high so that he could see more of the savannah. After a while the sun came up, the wax melted, the feathers came out and the fox fell to the earth, where he was crushed to death on the rocks.

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The Turtle and the Deer

A jaguar saw a turtle and tried to catch him. As the turtle ran into a hole among some roots the jaguar caught him by the hind leg. The turtle laughed and said, "You caught a root of the tree." The jaguar let go and then caught a root, while the turtle pulled his legs into the hole. The jaguar waited but the turtle would not come out. After a while the jaguar was so weak he could not go away and finally the turtle came out and found him dead. He made a barbecue and while he was roasting him a deer came along and asked him how he caught the jaguar. He said, "By running after him." The deer didn't believe it and said, "Can you catch me?" "Yes," said the turtle, and started for him. The deer ran for a long time, thinking the turtle was after him, and when nearly exhausted he called, "Turtle, are you near?" Another turtle who happened to be there said, "Yes, I am." Whereupon the deer fell down dead near the turtle.

Games and Dances

They have many games and mimetic dances which take place on moonlight nights. At the full moon in the month of May they have the "feast of the pigs." The peccaries are born in April and when a month old are regarded as great delicacies. The day before the feast and dance the men go hunting for the first time since the pigs were born. The women make the drink in time so that it may be ripe for the occasion. Visitors often come from other villages to take part in the feast. After the meal is over, which consists largely of roast pig and farinha, they all take part in the dances. The first one is the jaguar following the herd of peccaries. Two men lead blowing trumpets alternately, keeping time to the march. Behind them come the group of people scattered like a herd of peccaries feeding. The children run about among the older ones like pigs in the herd. They all make the characteristic sounds of the animals when feeding. Bringing up the rear is the old boar, who continually champs his teeth and rushes about to prevent the jaguar from gathering up any chance stragglers. The jaguar skulks behind catching a pig whenever opportunity offers. He goes about on three legs, holding the other out as a tail. He and the boar have frequent encounters. They are often rival athletes and give a good exhibition of wrestling.

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Another is the "pig trap." The dogs chase the ring-necked peccaries into holes in the ground. Then the hunters make a trap by driving a series of cross stakes so that the peccary must run between them. The hunters shoot him as he goes or kill him with a club at the end of the line. The players, men and women, line up with legs wide apart behind the two musicians who are supposed to stand nearest the hole where the peccaries are confined. Then the ones taking the part of peccaries rush out, crawl between the lines of legs and are killed with a club at the end. They have similar dances for other animals and all are so well performed that the stranger can understand them without an interpreter.

They have several of our children's games in which they catch hands and crack the whip, run the figure eight, wind the line around two persons who hold fast at one end, start at one end of the line and turn it wrong side out by passing under the arms of the next pair, then catch ends and turn half the line heels over head backwards, etc. All take part and have great fun. When all is over, their perspiring naked bodies are covered with dust and they rush to the river for a bath.

Warfare

Some of the women accompany the men when they go to war and carry their packs, cook their food, and care for the wounded, but do not fight. No declaration of war is made, because they are always in a state of war with certain tribes. Their method is to make a surprise attack at daybreak. They take no men prisoners, but kill them, cut off their heads, carry them home and preserve them as trophies. The teeth are taken out and suspended from a cotton belt, which they wear with great pride. Captured women may be taken as wives or servants, while children taken are made members of the tribe. A chief always fights with a chief. Some years ago a Mundurucu chief killed a Parintintin chief, took his head and captured his small son, whom he took home and adopted into the tribe as his own son. When the chief died this boy became the chief and carried on the warfare against his people. The Mundurucus and Parintintins are traditional enemies and from time immemorial have made war upon each other. The last encounter took place about twenty years ago, when a hundred Mundurucus made a campaign in which they burned a village, killed a chief and

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captured his son. They brought back four heads. Some of their own men were killed and nearly half died from hunger and sickness on the way home. The four heads were preserved and the teeth made into belts as is their custom. We secured these four belts for the Museum. They are particularly valuable because there are no more among them and they will not make any more. The two enemy tribes have been pushed far apart by Brazilian rubber gatherers.

The custom of preserving the head as a trophy is found among other tribes in the Amazon valley. The Jiveros on the Pastassa River in Peru cut off the head of the enemy, remove all the bones by cutting through the skin from the crown of the head to the neck and shrink the fleshy part to the size of a man's fist. The form of the face is preserved as much as possible. It requires some skill to treat the head. Boys are taught the process by using sloth's heads. The idea in thus preserving the head appears to be the same here as among the Mundurucus. It is a great honor to have taken the head of one of the national enemy. The successful warrior preserves the head in order that he may have it present at a great feast which he will give later when he can make provision for it. After the feast is over the head is of no great importance, and may be disposed of to the trader. The Huitotes on the Putumayo River cut off the head and eat it after it has been boiled. While the chief, medicine man and a few old men eat the head, the younger men take part in a war dance outside. The skull is kept and sometimes set up on a pole in front of the great house. The Andokes on the same river cut off the forearm, eat the flesh and use the bones for flutes. In all these cases, one of the main ideas is to terrorize the enemy.

In former times among the Mundurucus warfare occupied a very important place. The war chiefs were more influential than the civil chiefs. They formed the first class and the civil chiefs the second class. The sons and daughters of these chiefs intermarry and the inheritance is in the male line. If a woman of the first class should marry a man of the second class, their children would be second class. Today most of the people belong to one class or the other. A daughter may be given in marriage at six or eight years of age, but she remains with her parents until after puberty. She may be given to a man of fifty, she has no voice in the matter, but she always remains faithful.

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The Universe

Their cosmology is simple and interesting. They start with a world readymade and very much as it is today with the exception of some mountains which were made to protect the people. The earth has an end, but no one has ever gone there. The sky also has an end, but no one has ever seen it. The earth and sky remain stationary while the sun and moon move. The creator transformed a young man with red eyes and long white hair into the sun and sent him up above. A young virgin with very white skin was transformed into the moon. The milky way is a man suspended in his hammock. The mother of the rain makes it thunder by rolling her pestle in the mortar. Her husband makes the rain. One man flashes the lightning after it has been prepared by another. The constellations are animals and men out in a great savannah. The eclipse of the sun is due to a great fire that sweeps over its surface. One time a great medicine man called all the people together and told them to watch while he ascended to the sun and put out the fire. They were all watching, but did not see him ascend. He was gone a long time. He found the people who made the fire, killed them and extinguished the fire. No one saw him descend, although they had been watching all the time since he disappeared. He suddenly landed on his feet in their midst. He told them that he had put out the fire, but they would see the smoke until the next day. Since then the medicine man sends his *yakpu* to clear the sun and it falls as a ball of fire. When it is cool he gets it and guards it until another eclipse. The *yakpu* is, no doubt, a piece of meteoric iron. We were not allowed to see it.

Three years ago a Catholic mission was established at one of the Mundurucu villages on the Cururu River. One Father and three Sisters spent six weeks in canoes from the end of navigation on the Purus to reach the place where they founded the mission. They now have twenty-six children under their care, about half of whom are Indians. The others belong to the rubber gatherers on the Tapajos. It is no discredit to the whites to say that the Indian children are doing the best work in the school. The Indians are stronger and naturally do better industrial work in doors and out. They lead also in literary work. A little girl about nine years of age, who three years before had never seen a white man, was leading the responsive Bible reading in Portuguese. These children are the interpreters for their parents and the missionaries. It is very impor-

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tant to teach them the language, because the whites will not learn Mundurucu. This school is doing good work and with proper support ought to be of great value to the Indians.

This tribe is no doubt the largest left in northern Brazil. They are honest, upright, good laborers and with careful treatment will become of inestimable value to this region, where workmen are scarce and the conditions of life are difficult for the foreigner. They are just beginning to work rubber and are doing remarkably well at adapting themselves to the regular daily labor required for that occupation. Their wants are increasing from their association with the whites. Their food supply is being interfered with by the rubber gatherers, who also depend largely upon hunting and fishing for their food. It is just at this time that the Indians need guidance to meet the new conditions and protection from the unprincipled trader. We have recommended among other things a law to protect them from the credit system which gives the trader an opportunity of robbing them. They are accustomed to equal exchanges and cannot keep accounts. We have suggested also that the state give them some cattle and stock their lakes and quiet rivers with piraricu, a large Amazon fish which does not pass the rapids of the Tapajos.

The Paikipiranga

While doing some archæological work along the Maraca River, a northern tributary of the lower Amazon, we heard stories of a strange tribe of Indians who had recently come down to the first rubber gatherers' place on the upper river. No one knew their name or anything of their language. We took the first opportunity to visit them. After traveling as far as possible by launch and canoe, we went on foot seven days through the downpours of the rainy season.

When they came to the rubber camp they gave the whites to understand that they were fleeing from some dreadful disease which had carried off all the rest of their tribe, which had been a very large one. The rubber men said some of the Indians were suffering from catarrh when they arrived and they said it was the same disease which had taken so many of their people. There were nine in the party, the chief, a man about thirty, six women from fifteen to thirty and two boys about three and ten. One of the women has since died, but the others are now in perfect health, even if not contented and happy. On January 11, 1916, they were all taken down river

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to Central to meet a Padre from Santarem, who baptized them and married two of the women to two Brazilian rubber men. Neither the foolish priest nor any Brazilian knew a word of the Indian language. At the time the Indians must have wondered what it was all about, as they had not yet learned Portuguese or Latin, but they had a rude awakening when the women were carried off by their new-found husbands. One woman was allowed to take her three-year-old son with her. The chief, his wife and a relative are remaining together and living with a rubber gatherer, where they are making themselves useful and agreeable.

We were unable to get any information about their culture other than what we could observe. We got a short vocabulary, but sufficient to identify their language as a dialect of Tupi. We tried to use one of the happy husbands in getting terms of relationship, but he failed to make his wife understand the simple terms, father, mother, son, wife, husband, brother, sister, etc. Language is unnecessary in the religion, love and servitude of the Amazon. In physical appearance, they are well developed, but short of stature. The man has considerable hair on his face and body. The bridge of the nose is very low, which gives them the appearance of being very wide between the eyes. The men wear the loin cloth and the women short skirts woven of native cotton. Their hammocks are also made of cotton.

This was our first journey through a real castaña or Brazil nut region. This tree grows only on the fertile high land, where we counted as many as a dozen, from two and a half to six feet in diameter and seventy-five feet high without a limb, on an acre of ground. A tree yields from one to two barrels of hulled nuts each year. About a million bushels are shipped annually from Para, half to America and half to the different countries of Europe. They are used entirely to eat and not for making oil as generally supposed; they are too expensive for that purpose, as they retail from twenty to thirty cents a pound. The present output could be increased ten fold with better facilities for transportation. The shell, which contains about fifteen of the nuts, is so hard that it does not break when it falls and the animals are unable to eat the nuts. The sabacaia nut is more valuable, but it has a cap which falls off when ripe and allows the nuts to scatter on the ground, where the animals eat them. It is so dangerous, when the Brazil nuts are falling, that men will not travel through the forest at that time.

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Difficulties of Travel

Much has been said about the annoyances, difficulties and dangers of Amazon jungle travel. For the most part there has been exaggeration, but at best there are many drawbacks to the pleasure of the traveler and to the development of the country.

The greatest danger to the foreigner is the climate. The depressing effect of heat and moisture. The stranger is always advised to keep out of the sun, to do no manual labor and to take stimulants regularly. We kept in perfect health by neglecting all this advice. We paddled our canoes, carried our packs and dug in the mounds every day with our own hand and felt just as well as when doing the same kind of things in cooler climates. With regular exercise, regular bathing, and regular sleeping a temperate man can keep well in the tropics for a short period. Malaria is the one disease he can scarcely hope to escape, but by taking small doses of quinine he can prevent the fever from rising. We soon learned that six grains twice a week was sufficient to keep it down.

From the Indians we had little to fear, yet we took the precaution to carry with us the chief from the last village to the next. When we arrived at the clearing that always surrounds a village, we stopped and allowed him to go in alone and announce our coming. This prevented their running away and secured a favorable reception. We were always treated as visiting chiefs among the tribes who had not before seen white men and we tried to act the part with our best ability. At least we avoided giving offence.

There is practically no danger from the puma, jaguar, alligator or large serpents. They seldom if ever attack man unprovoked in this region. The only real danger is from the smaller poisonous reptiles—the rattler, jararaca, and bush master. When on foot we wore leggins and when traveling through the forests followed an Indian. Not that his eyes were any better than ours, but because he was more accustomed to seeing them and knew their haunts. In all our experience we saw many snakes, but had only one man struck. We gave him white man's treatment at once and later his chief gave him their treatment, which consisted in singing songs, blowing on all his joints and spitting on the wound. Unfortunately we had to leave him on the trail and never were able to learn whether or not he recovered.

Mr. Roosevelt has called attention to the danger from the piranha, the man-eating fish which is common in many of the rivers.

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It is undoubtedly the most ferocious fish in the world and will attack anything. Fortunately for the canoemen, he is not found in rapids or very shallow water. He always makes his presence known; hence there is little danger from him. The annoyances one notices most at the time, but soon forgets them. Of these it is difficult to make a choice. The mosquitoes, flies, ants, and small crawlers too numerous to mention, do make life rather miserable at times. They are never all present at any one time nor any of them at all times. Many places we wore gloves and headnets during the day and slept in nets at night. When we were doing archæological work in the forests, the mosquitoes were so bad in daytime that we had to wear gloves and nets and have a boy with a brush to keep them off our bodies. The sharp sting from the bite of the mosquito is soon over and nothing comes of it at once, but the bite of the small fly leaves a blood clot which continues to itch for days. If one scratches he is sure to have blood poison—he must simply let it hurt. The worst of the lot of nuisances are the small crawlers, because one cannot protect himself from them. After a time one remembers only the pleasant days and nights of the dry season in the open country where for four months at a time he can travel and sleep out of doors without protection of any kind.

If one adapts himself to the conditions, customs and food of the country he will soon be able to travel and work in comparative comfort. However, he will have great difficulty in applying himself with his accustomed zeal. It goes without saying that one should not remain a long time in such an environment. Our stay of three years was too long. One not only gets out of touch with the world, but he also gets out of harmony with it.

To summarize, our expedition accomplished much more than the making of a large collection for the Museum exhibits. From our extended travel we came into touch with many things of interest and secured much information which will be of service to others in a material way. We brought back collections from some thirty tribes which will be valuable in comparative ethnological study. The varied archæological material will be of service in determining the relationship between the ancient culture and that of the present peoples. Besides these things of material culture, we secured a vast amount of somatological, linguistic and ethnological data which will be invaluable in the study of the complicated questions of migrations and mingled cultures. An article relating to the archæological work will be found in a future number of the JOURNAL.

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EQUIPMENT

A word about equipment may be of interest to other travelers in this region. The photographic outfit is of most importance on any kind of expedition. For nearby work, we used a 5 x 7 Century camera fitted with a Voightlaender lens and carried kits for 12 x 18 mm. plates for single portraits and small objects. Our most used and most convenient outfit was an Eastman 4¼ x 6½ kodak fitted with a No. III Goerz lens and a volute shutter. We carried also an extra plate attachment and case. Along the rivers we used plates, but when on foot traveling across country where plates could not well be carried on account of the weight, we used roll films. After expensive experimenting we found that Ensign films, Wratten & Wainwright and Hammer plates stood the heat and moisture best. Some of our very best photographs were taken with films which had been a year in the tropics. Hammer plates three years old proved better than some other makes which were only three months from the factory. It was necessary to carry chemicals and to develop our negatives at once. The Agfa fixing bath put up in glass tubes is convenient and satisfactory. Fixing baths put up in tins will not keep in the tropics. When we returned to our base we made prints of all important negatives and sent them home at once. After they had arrived safely we sent the negatives. Ansco paper three years old proved better than some other papers fresh from the factory. It is a shame that workers must thus experiment in the field and lose invaluable photographs simply because manufacturers and dealers will not take the trouble to find out what is suitable for tropical use and are willing to recommend anything to make a sale. Such dealers should be widely advertised. It is difficult to refrain from using names in this connection, but instead of doing so we shall take more pleasure in recommending the Hammer plate, the Ensign film and the Ansco paper for continued work in the Amazon country.

For guns we used the Remington 30–30 rifles and the 12 gauge repeating shotgun. These were most satisfactory to us and they so recommended themselves to other people that we had to supply them with some fourteen guns. In spite of their fine mechanism they were easy to clean and to keep in perfect condition even when traveling on the trail in the rainy season.

In our geographical work we used the Hicks sextant, aneroid and artificial horizon. We did not need the wind shield because

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we worked with the stars only and there is very little wind at night. The sun was too high for meridian observations. We carried a Waltham pocket chronometer and Elgin watches for time and a Brunton compass for traverse work.

Baggage is very difficult to arrange for all kinds of travel. We used some Silver airtight metal trunks which were always safe in the rains on the trails and on the bottoms of leaky canoes. The lightest and for all purposes probably the best are the heavy duffle bags with a native made caucho bag inside. In canoes among the rapids we carried our notes, cameras and photographic materials in such bags, together with small life preservers. These would float and were not fastened to the canoes. A few most necessary heavy things were always made fast. The Abercrombie oil silk fly is indispensable. One weighing seven pounds will protect six men and their packs and will last a year or more. My personal outfit was made up of a Wapisiana Indian hammock, a mosquito net and a five pound army blanket which I used every night when sleeping out of doors. The best clothing is the two piece suit of the country, a Stetson hat and strong boots. I know of nothing so absolutely uncomfortable as to have the rain soaking through one's hat and running down about his neck and ears. My Stetson after nearly three years wear needs only new bands for another year of tropical rains. Waterproof boots are not fit for tropical wear. When one is walking in the rain it is impossible to keep the water from running into his boots and it is likewise impossible for it to get out. His feet steam the first day, he is lame the second and laid up by the third. Porous boots with strong soles are best and coolest.

When traveling and working in difficult places it is a much better policy to carry as few things as practicable, and to take exceptional care of these, than it is to burden oneself with duplicates expecting to lose something. Acting on this policy during our six years in tropical work, we never lost a man, a canoe, a notebook, a camera or instrument of any kind, and not even a drop of mercury. Yes, we were fortunate; the painstaking usually are.

W. C. F.

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THE EXPLOITS OF HERAKLES, ON GREEK VASES IN THE UNIVERSITY MUSEUM

THE recent acquisition of an Attic black-figured amphora by the Museum, with a painting of Herakles fighting the Amazons, has made it seem expedient to collect together the vases in the Museum that portray exploits of this popular hero, and to give illustrations of all previously unpublished specimens.

A Newly Acquired Amphora

The amphora recently received was formerly in the Borelli Bey Collection, which was dispersed in Paris in 1913. In the Sale Catalogue, it is numbered 221, and a photograph of it is published. The writer of the catalogue, in describing it, calls it a work of the painter Exekias; this, though possible, is not likely.

On the obverse side (Fig. 52) we see Herakles, sword in hand, attacking two Amazons. He wears his lion's skin over a short chiton. One of the Amazons, who is fully armed, wearing a helmet and breastplate, and a sword at her side, and carrying a shield, with the device of a tripod, and a spear, has been stopped in her flight by the hero, who has overtaken her, and forced her on one knee. Her sex is betrayed by the treatment of the flesh parts in white overcolor, a common method in the black figured technique for portraying women. From the right, the second Amazon, similarly armed, comes to her comrade's rescue.

The reverse (Fig. 53) shows two Greeks attacking a fallen Amazon. The Amazon is in every respect identical to the one attacked by Herakles, even including the device on her shield. The two Greeks are fully armed; but the shields that they carry are of a different shape from that of the Amazon, being of the so-called "Boeotian" type. They also wear greaves, which are not worn by the Amazons on this vase.

A singular peculiarity is to be noticed in the helmet worn by the Greek on the left of this picture. His helmet is drawn apparently with two crests. Whether this is mere carelessness on the part of the vase painter, or whether, as some maintain, this is a crude attempt

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to draw the crest in full face, instead of in profile, is uncertain. Other examples are known, three of which have come to my notice.

On a black figured panel amphora, in the Louvre, No. F53, signed by Exekias, we see Herakles, in his combat with the triple

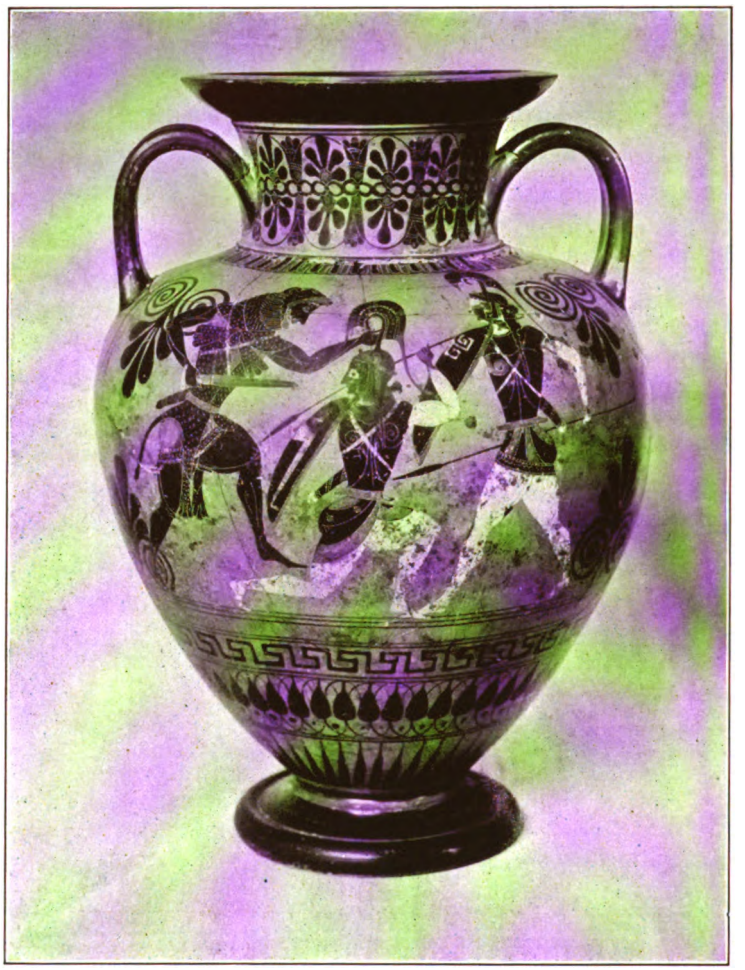

FIG. 52.—A newly acquired black-figured amphora.

A. Herakles fighting two Amazons.

bodied Geryon. One of the heads of Geryon is equipped with a helmet showing such a crest. This amphora is published among other places, by Gerhard, "Auserlesene Vasenbilder," pl. 107.

Another black figured panel amphora, seen by Gerhard in the trade in Rome, and now lost, had a battle scene, in which one of the

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combatants wore such a helmet. This vase is published in "Auserlesene Vasenbilder," pl. 208.

A red figured amphora in the Louvre, No. G1, signed by

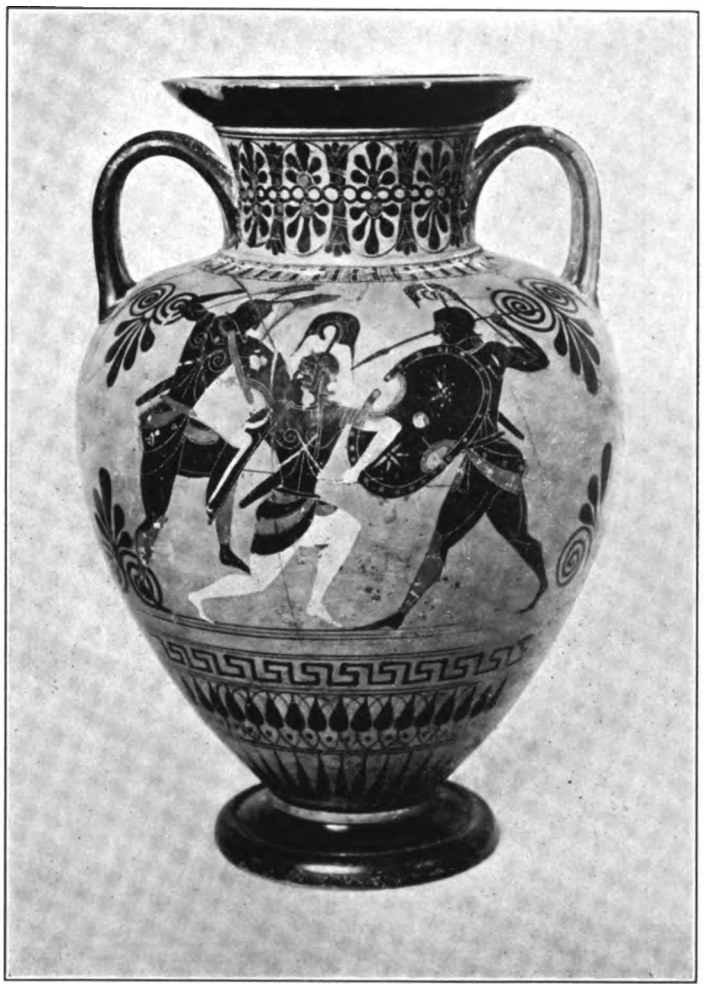

FIG. 53.—A newly acquired black-figured amphora.
B. Two Greeks attacking an Amazon.

Andokides, shows a combat, in which one of the warriors wears such a helmet. Published in Furtwängler-Reichhold, "Griechische Vasenmalerei," pl. 111.

HERAKLES AND THE AMAZONS

The battle with the Amazons is the ninth of the labors of Herakles for his uncle Eurystheus, King of Mycenae. It was to

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bring back to Eurystheus the girdle of Hippolyta, the queen of the country that these warrior women inhabited. In order to accomplish this feat, Herakles had to fight with them.

Next to the new amphora, the best example of this exploit in the Museum is painted on a black figured amphora, with a cover, found at Corneto in Etruria. This is one of the finest vases in the

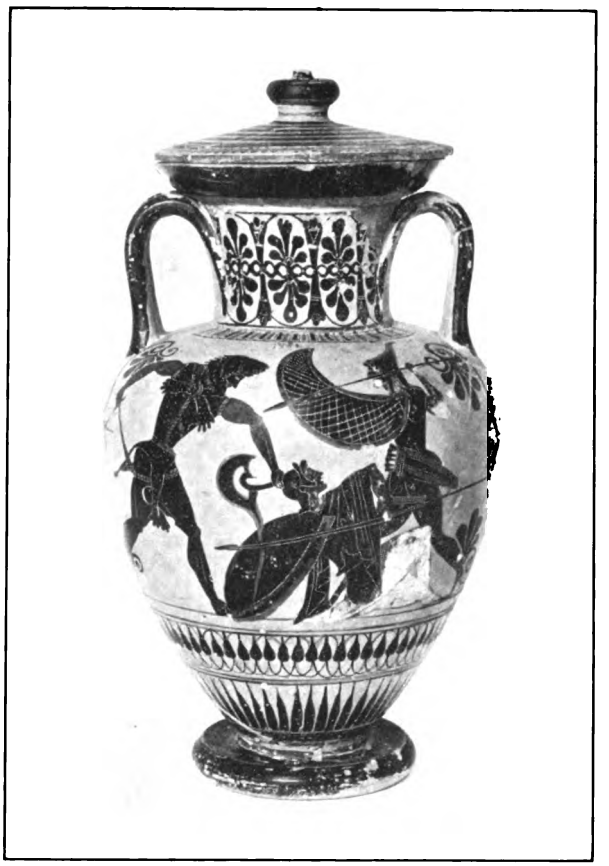

FIG. 54.—Black-figured amphora from Corneto.

A. Herakles fighting two Amazons.

Museum's possession: the preservation is very good, and the drawing is of the best period in the black figured technique, about 525 B. C., a little later probably than the newly acquired amphora. On the obverse (Fig. 54), Herakles attacks two Amazons. In this connection it should be said that, while in these two amphoræ there are only two Amazons with Herakles, three is the more common number on Greek vases in general. Herakles has dragged one of the Amazons

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to the ground, and grasps the crest of her helmet in his left hand, while he has his sword in his right. The Amazon tries to resist. The hero wears the lion's skin over a short chiton; the Amazon is fully armed in the Greek fashion, and the nude parts of her body (face, arms and legs) are rendered in white.

From the right the second Amazon comes to the defense of her

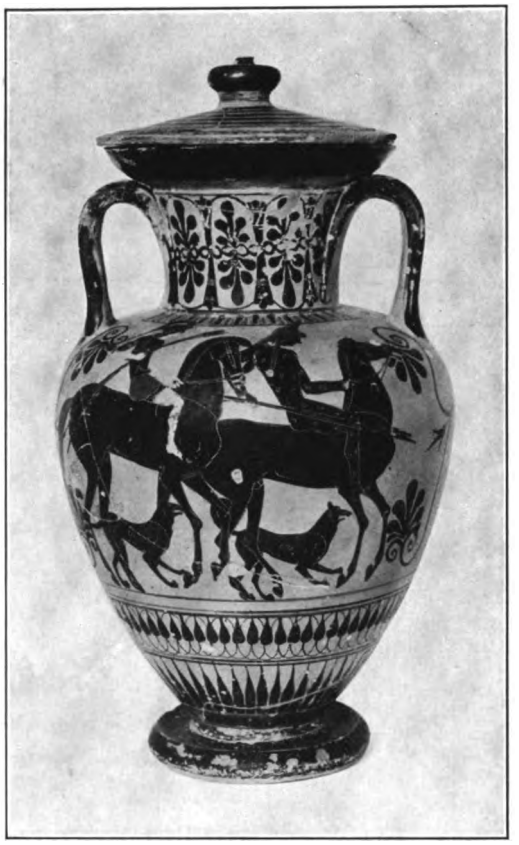

FIG. 55.—Black-figured amphora from Corneto.
B. Two mounted Amazons, with dogs.

comrade. She wears an Oriental costume, composed of a tight fitting, one piece garment, ornamented with spots, reaching from the neck to the ankles, and terminating in tight trousers, in the Persian manner. On her head she wears a Phrygian cap, and her face is rendered in white. A quiver is slung from her shoulders. Her right arm is drawn back, with her spear poised to thrust at Herakles, against whom she strides with great energy, and on her left arm is

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a crescent-shaped shield, with a checkered design, perhaps to represent wicker work.

On the reverse (Fig. 55) are two mounted Amazons, riding bare-back, towards the right, with two dogs. One of these Amazons wears Greek armor, the other, the Phrygian costume. Both carry two spears.

FIG. 56.—Fragment of a cup, from Orvieto. Herakles attacking an Amazon.

There is still another representation of this exploit, on a fragment of a black figured cup, found at Orvieto (Fig. 56). Here, between two eyes (we must undoubtedly supply an eye at the left), Herakles attacks an Amazon with his club.

HERAKLES AND THE CRETAN BULL

This was the seventh of the labors that Herakles did for Eurystheus. The bringing of this famous bull from Crete to Mycenae was a favorite subject among the Greek vase painters, and the Museum possesses a fragment that may possibly show it.

FIG. 57.—Fragment of a cup, from Orvieto. Herakles and the Cretan bull.

This is a fragment of a small black figured cup, found at Orvieto, and probably part of the same vase as the Amazon fragment described above (Fig. 57). In the sherd we see a nude bearded man running with outstretched arms to the right, attempting to catch an animal running in the same direction. Unfortunately, only the hind parts of this animal are preserved; but it can be seen from their

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FIG. 58.—Black-figured amphora.
A. Herakles and the Nemean lion.

FIG. 59.—Black-figured amphora. Draped figures and winged Victories.

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shape, and from the drawing of the tail, that it is a bull which the man is pursuing. The man is, therefore, trying to grasp the bull by the horns. This is very possibly a representation of Herakles and the Cretan Bull.

Herakles and the Erymanthian Boar

This was the fourth of the famous twelve labors of Herakles. In the Museum are fragments of an Attic black figured amphora,

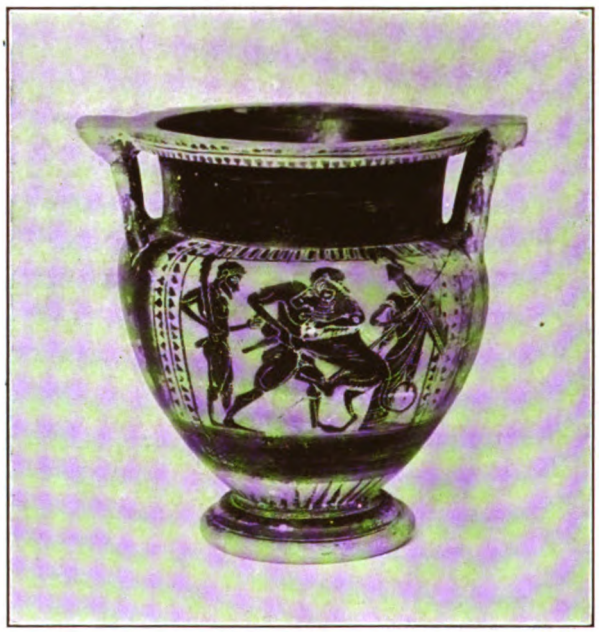

Fig. 60.—Black-figured krater.
Herakles and the Nemean lion.

showing Herakles bringing the boar to Eurystheus, who in fear has thrown himself into a big pithos, or jar. The onlookers are Athena on the right, and Hermes on the left. These fragments are published in the Museum Journal, Vol. IV, 1913, p. 159, Fig. 137.

The Apotheosis of Herakles, and His Marriage with Hebe

After his death from the poisoned shirt of Nessos, Herakles was made a god, and conducted to Olympus. The usual mode in the black figured technique is to have him ride in a chariot driven by Athena and escorted by the other gods. A black figured hydria in this collection seems to show this subject. Athena is driving a

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chariot, and the man with her carries a club, and may well be Herakles, although he is not dressed in the lion's skin. This vase is published in the MUSEUM JOURNAL, Vol. IV, 1913, p. 147, Fig. 127.

When Herakles was made a god, he was married to Hebe, the cup bearer of the gods. This marriage is portrayed on a very beau-

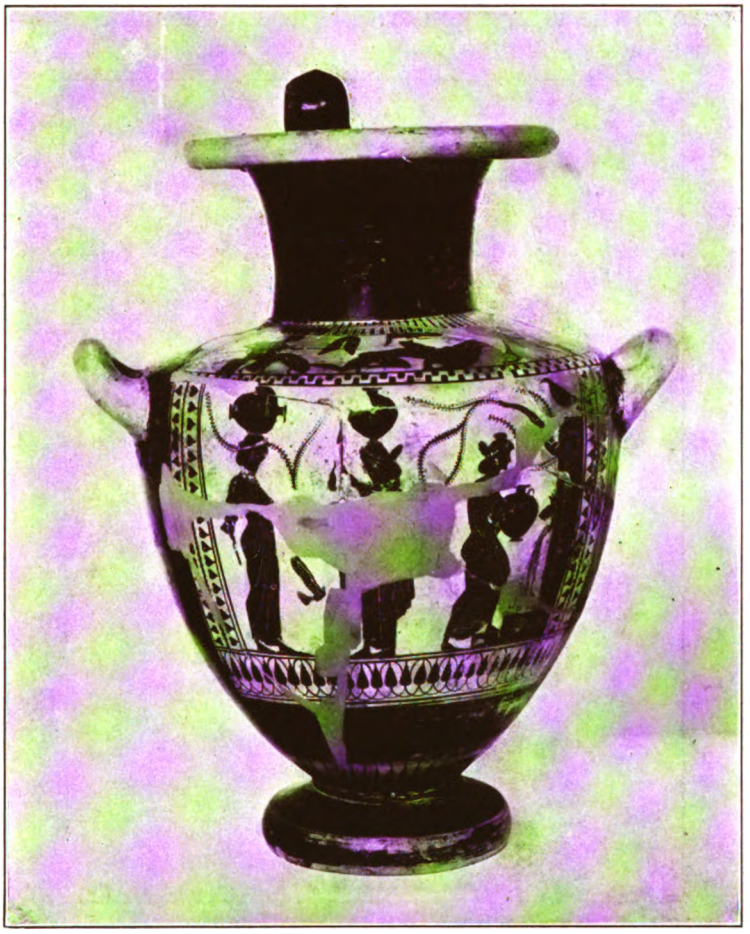

FIG. 61.—Black-figured hydria.
On shoulder: Herakles and the Nemean lion.
Main design: Women at fountain.

tiful late red figured pyxis, or toilet box, recently acquired by the Museum, and published in the MUSEUM JOURNAL, Vol. VII, 1916, p. 270, Fig. 204, and p. 272, Fig. 205.

HERAKLES AND THE NEMEAN LION

This, the first of the labors of Herakles, has been reserved for the last one to be discussed, as it is the most popular of all the

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exploits of the hero in the Greek vase paintings. There are two ways in which this exploit is shown. In the earlier method, the lion is represented as rampant, and Herakles is represented as wrestling with him standing; in the other and later type, Herakles bends over the lion, who usually strikes at him with one of his hind paws. There are five vases in the Museum, showing this combat, two in the earlier, three in the later manner. In the earlier type there are

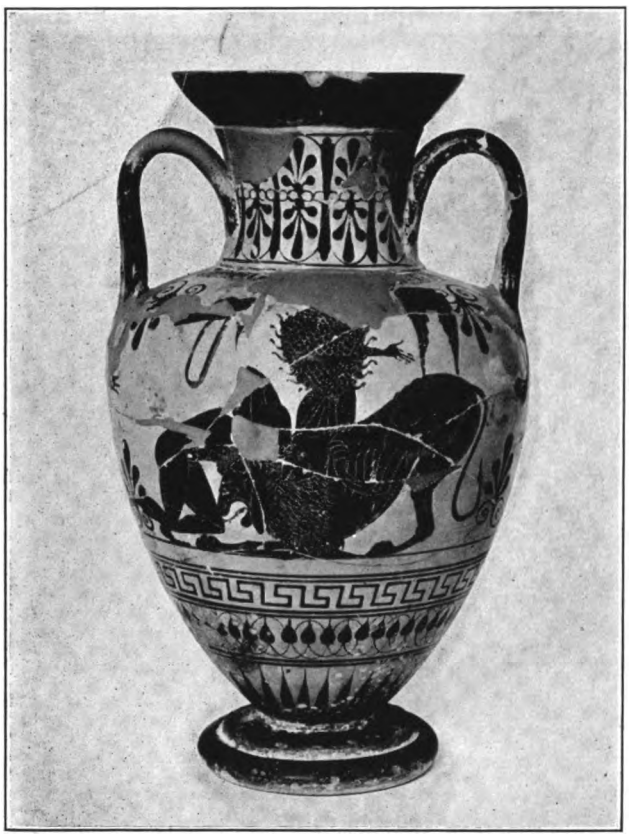

FIG. 62.—Black-figured amphora from Corneto.
A. Herakles and the Nemean Lion.

1. A very crude amphora of the black figured technique, at present not on exhibition (Figs. 58 and 59). On the obverse (Fig. 58), Herakles wrestles with the lion. He is nude, as he always is in these vases. At the left is his nephew and comrade Iolaos, who holds his club; he is also nude. On the right, a male and a female figure are represented, perhaps Athena and Hermes. The reverse (Fig. 59) has a design of draped figures and winged Victories.

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2. A black figured krater with column handles, said to have been found in one of the Greek Islands (Fig. 60). Herakles wrestles with the lion in the presence of Iolaos on the left and Athena on the right. On the reverse are four warriors, marching in procession.

The three vases of the later style are

3. A black figured hydria, probably found at Chiusi. On the shoulder is a picture of Herakles and the Nemean Lion, in the presence of Athena and Iolaos (Fig. 61).

4. Black figured panel amphora, found at Orvieto. On one side is Herakles fighting with the lion, in the presence of Athena and Iolaos; on the other a Bacchic scene. This excellent amphora, quite in the style of Exekias, has been published in the MUSEUM JOURNAL, Vol. VI, 1915, pp. 86 and 87, Figs. 65 and 66.

5. I have selected, to conclude this article, a very beautiful black figured amphora from Corneto (Fig. 62). Herakles bends over the lion, who strikes at his face with his left hind paw. Behind the combatants stands Athena, encouraging the hero. This vase belongs in the best period of the black figured technique, and shows great skill in the use of incised line drawing. The reverse has been worn away, but seems to have shown Athena, Hermes and Herakles.

S. B. L.

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NOTES

We regret to record the resignation from the Museum Board of Mr. B. Franklin Pepper in order to give his services to the Government. Mr. Pepper, who has gone to Fort Niagara, has been a member of the Museum Board since December, 1905, and has during that time been its Secretary.

Mrs. Charles Brinton Coxe has presented to the Museum a set of Curtis' "North American Indian" in eleven volumes of text and eleven folios of plates. This publication, which deals in succession with all the Indian tribes in America north of Mexico, is a work which is highly esteemed by all students of the Indian as well as by others whose interest is centered in the artistic side of the native American life and its surroundings. The copy which the Museum is now so fortunate as to possess was the property of the late President of the Museum, Mr. Eckley B. Coxe, Jr.

The Library of the Museum has received from Mr. Charles P. Bowditch of Boston a copy of a Quiche-Spanish and Spanish-Quiche dictionary. The original of this work was written by an anonymous Franciscan priest of Guatemala. The manuscript is a copy made, probably, at Zacapula, Guatemala, in 1787 by Fermin Joseph Tirado, who announces the fact that he knows the Quiche language. The copy presented to the Museum is a photographic copy made by the photostat process.

Miss Lydia T. Morris has added a piece of Roman glass to the John Thompson Morris Collection and has also presented eleven pieces of Russian enamel work.

Mr. Samuel P. Hanson has presented to the Museum two hammocks of native workmanship from the west coast of Africa. One of these hammocks was made in 1870 and was exhibited at the Centennial Exhibition.

A Babylonian seal cylinder with engraved design representing the owner being presented to a goddess by an intermediary has been acquired by purchase.

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Chinese porcelains, formerly in the Morgan Collection, to the number of sixty-six have been selected and purchased by the Museum.

Mrs. J. William White has presented a collection of American and Indian pottery, together with an Egyptian mummied cat.

The Alaskan collections have been increased by the purchase of a collection from the Tanana River, obtained by Mr. Guy Madara. The Tinneh Indians of that region, who have until recently remained isolated, are now becoming so civilized that genuine specimens of their handiwork are rare.

A collection obtained among the Tlingit Indians of Southeastern Alaska by Mr. Louis Shotridge has been received at the Museum.

Messrs. Probst and Wight of the Africa Inland Mission stationed at Aldai, British East Africa, have sent a third consignment of the ethnological collections which they have been making among the natives of that region on behalf of the Museum.

Four Navajo blankets, one of them of great rarity and beauty of design, have been purchased.

A collection of ancient Mexican jewelry ornaments and amulets of jade and gold has been acquired by purchase. The collection contains also pottery images from Oaxaca and a stone effigy vase.

We record with very deep regret the death of Mrs. Louis Shotridge which took place at Haines, Alaska, at the mouth of the Chilkat River, on June 12. Mrs. Shotridge was the daughter of Scundo, a well-known medicine man of the Wolf party of the Chilkoots. Her mother was of the Thluqwonutdi clan of the Raven party of Chilkoot. From her childhood Mrs. Shotridge was known for her beauty of person and for her quite exceptional intelligence. During the three years that she spent with her husband in Philadelphia she became a well-known figure and a great favorite, especially with the children of the public schools whom she met frequently at the Museum and to whom she talked about the customs of her own

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people. Besides being an accomplished musician and a good story-teller, she had many gifts which gained for her the admiration and friendship of many people in Philadelphia.

A committee of the citizens of Philadelphia and friends of Mrs. Cornelius Stevenson, in recognition of her public service, have presented to the Museum a portrait of Mrs. Stevenson painted by Mr. Leopold Seiffert. The portrait is hung in the library with a tablet bearing the following inscription.

Sara Yorke Stevenson, Sc. D.
Curator of the Egyptian Section 1890 to 1905
Secretary November 1894 to January 1904
and
President January 1904 to February 1905
of the
Free Museum of Science and Art
of the
University of Pennsylvania

The following persons have been elected to membership in the Museum.

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SUSTAINING MEMBERS

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William H. Donner
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Warner J. Steel
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Miss Margaret M. H. Thomas
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William H. Wetherill
Mrs. J. William White
Richard Norris Williams
Pope Yeatman

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FORM OF BEQUEST

I give and bequeath to the trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here specify in detail the purposes.)

MEMBERSHIP RULES

There are four classes of membership in the Museum:

Fellows for Life, who contribute..... $1,000
Fellowship Members, who pay an annual contribution of..... $100
Sustaining Members, who pay an annual contribution of..... $25
Annual Members, who pay an annual contribution of..... $10

All classes of members are entitled to the following privileges. Admission to the Museum at all reasonable times; an invitation to any regular reception given by the Board of Managers at the Museum; invitations and reserved seats at lectures; the Museum Journal; Copies of all guides and handbooks published by the Museum and free use of the Library. In addition to the privileges to which all classes of members are entitled, Sustaining Members and Fellows receive, upon request, copies of all books published by the Museum.

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UNIVERSITY OF PENNSYLVANIA

THE MUSEUM JOURNAL

PUBLISHED QUARTERLY BY
THE UNIVERSITY MUSEUM

FOR ART
FOR SCIENCE
FOR CIVILIZATION

PHILADELPHIA, PA.
SEPTEMBER, 1917

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THE CHINESE EXPEDITION

NOTES

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¶ The Purposes of the University Museum

¶ To give to Philadelphia a Museum that will be in keeping with its traditions, that will answer to its needs and that will sustain its historic repute as a Stronghold of Civilization.

¶ To assemble collections that will illustrate the achievements of Mankind in the field of Art, and to cherish and preserve this Heritage from the Past.

¶ To trace the origin of Civilization and to reconstruct the successive steps and the varied episodes that have attended its development.

¶ To encourage the Arts; and to demonstrate the debt that Civilization owes to the Artist and to the Craftsman.

¶ To encourage Research, to send out expeditions to excavate the buried cities of Antiquity and bring to light the records of the Past; to gather and preserve the early Arts and ancient Lore handed down by the vanishing races of Mankind.

¶ To promote a knowledge of Humanity and to disseminate that knowledge by lectures, by publications, by cooperation with the schools and through the medium of the University; to illustrate the unity of all races and the diversity of their Art, to inculcate a better and more sympathetic understanding of all peoples and to afford a just measure of the contribution that each has made to Civilization.

¶ By bringing the people into direct contact with the visible Past and its prolific life, to exert a civilizing and humanizing influence upon our manners and habits of thought.

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THE
MUSEUM JOURNAL

VOL. VIII PHILADELPHIA, SEPTEMBER, 1917 No. 3

A NEW TABLET OF THE CULT OF DEIFIED KINGS IN ANCIENT SUMER

THE tendency to worship extraordinary mortals upon whom senates and municipal governments bestowed the rank of divinity has more or less intensively characterized the history of religion. In Greece and Rome the cults of deified heroes and kings largely supplanted the worship of the older nature and cultural gods. Specialists in the religious beliefs and practices of the classical peoples appear to agree in their explanation of the appearance of this kind of worship in Greece. By the fifth century B. C. the Greeks began to lose faith in the members of the Olympic pantheon. A subtle pantheism, which appealed to that poetic and imaginative race, rapidly replaced the older belief in the anthropomorphic gods, at least among the intellectuals. And after all supremely good and able rulers had ever been their sure benefactors when the gods had failed. Popular worship has never yet been successfully conducted upon a basis of pure philosophy and consequently the worship of immortalized rulers gained ascendancy in Greece instead of pantheism. "Divinity appeared living among them," says Wendland, and this cult acted as a medium between Stoic pantheism and mankind, says Fowler. In a measure these criticisms of two famous scholars are of universal application in human worship. Monotheism deprives man of his gods, his old religious toys and all of divine personality recedes into sublime obscurity. Or if it be a philosophic concept like pantheism, the world spirit, or pure reason which comes to occupy in the mind of man the position of supreme importance, mankind finds himself even more helpless in the construction of an efficient cult. In both of

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these events, in Palestine, as in Greece, the situation was solved by the worship of immortalized men, the visible medium between humanity and unseen divinity.

In Rome this deification began with the worship of the dead Cæsar, and only in a later period did they concede the rank of divinity to living men. On the contrary in Greece, Egypt and Western Asia these cults began with the worship of living men, mortals who were officially deified during their human activity. This kind of cult worship was already prevalent in the Oriental provinces of the Roman Empire even with regard to Roman emperors who were not deified in Italy before their decease. The entire institution at Rome was imported from the Greek, Egyptian and Semitic Orient, but only under stress of a philosophic and religiously skeptical situation already described, a situation which finally obtained in Rome centuries after its appearance in Greece.

Students of Greek religion have generally adopted the thesis that these cults were indigenous in Greece and they have been explained as above. At any rate this phase of worship, so important in the evolution of religion, not only thrived in the Orient long before its vogue in Greece, but occupied the position of greatest importance in the worship of the Sumerian people from the twenty-sixth to the twenty-first centuries B. C. Before 3000 B. C. ancient Sumerian city kings claimed to have been begotten by the gods and born of the goddesses. These were of course pure theological dogmas contrived by a state clergy to strengthen the royal prerogatives. Although the rulers of that period were not deified and did not receive adoration and sacrifice as gods, nevertheless their inscriptions show that their subjects believed them to be divinely sent redeemers and the vicars of the gods. They already correspond to the Greek θεοὶ σωτῆρες, the divine saviors, who became the objects of the Greek cults. And the members of the first powerful Semitic dynasty founded by Sargon at Agade about 2900 B. C.,[1] also claimed divine prerogatives to rule. The fourth and fifth kings of this Semitic line, Naram-Sin and Shargalisharri were actually deified. As in Rome the deified emperors received the prefix *deus*, or god, so here the names of these kings of the thirtieth century B. C. are prefixed by the sign for god. We might at first infer that this institution is of Semitic origin since historically it first appears in a Semitic dynasty. But this is surely due to the paucity of our material. The cults of divine rulers are so characteristic of Sumerian religious beliefs that we

[1] This date is in dispute. Some place this king as late as 2650 and others as early as 3800.

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cannot be in error in attributing the entire system to that source in Babylonia. However no evidence has yet been found that temples were built to these god men, sacrifices instituted and liturgies sung in their worship in that period.

It remained for the Sumerian people of the age of the dynasty of Ur (2475–2358) to develop this phase of religion to an extent almost unparalleled in the subsequent history of mankind. The Nippur Collection of our Museum has already furnished by far the most important tablets which contain liturgies sung in the cults of deified Sumerian kings. In view of the significance which this cult has for the origins of the same institutions in Greece and Rome, and for its striking similarity to much that is fundamental to Christianity and universally true in all human worship, our collection assumes a position of first importance in the history of religion. The founder of the dynasty of Ur, the so-called Ur-Engur, never received divine honors, but his son and successor, the famous Dungi, who ruled 58 years, was elevated to the rank of a god in the early years of his reign. His three successors, Bur-Sin, Gimil-Sin and Ibi-Sin all received canonization upon their accession to the throne, and they continued to receive worship after their deaths. In strange contrast to Roman procedure where the institution began by the canonization of dead heroes, in Sumer worship of dead kings was forbidden unless they had been deified while living. Evidently some kind consecration of the living mortal alone gave the possession of immortality.

Temples were built to these kings everywhere in Sumer, and our collection possesses liturgies sung in their cults at Nippur, a city over which they ruled. Sacrifices of oxen, sheep and rams were made to these god men as to the great gods themselves. We also possess seals of influential Sumerians dedicated to these god kings, Dungi, Bur-Sin and Gimil-Sin, and these seals show the deified emperors seated on thrones receiving adoration precisely as one of the great gods. The month of July was dedicated to the festival of Dungi, exactly as our July and August were named from *deus Julius* and *deus Augustus.*

Now, before mentioning our Sumerian tablets which contain liturgies sung in the worship of these god men, I shall call into brief discussion the ideas which apparently created a situation favorable to this extraordinary period of god man worship. In Sumer it certainly did not arise because the Sumerians and Semites had become skeptical regarding the powers of the great gods. In the liturgies sung in the cults of the divine men, the earth god Enlil, the sun god Babbar, the moon

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god Sin, the mother goddess Innini and all the others occupy the same classical positions of unlimited power and enjoy the same unrestrained confidence. The origin of god man worship in Babylonia is connected with a fundamental doctrine of ancient civilization, the belief in a dying god. Tammuz, the youthful son of mother earth, incarnation of earth's productivity, the soul of vegetation, the flowers and flocks, suffered annually the fate of all mortals. He died in the summer heat and sojourned a brief period in hell, returning again, after his mother's pilgrimage, to renew life upon earth. In their kings they probably saw types of this dying god, men who by divine commission of the gods controlled the rains and winds, made the pastures grow and the flocks increase. This connection with nature was certainly attributed to the kings not only in ancient Sumer but to the kings of Babylonia and Assyria down to the Greek period. Mortal man appearing among men as a *θεὸς σωτήρ*, a divine savior, had naturally more affinity with the dying god than with any other deity. There is also little doubt but that prehistoric kings actually posed as the youthful son and beloved of mother earth, the virgin mother goddess, for a dynastic list of prehistoric kings in our collection actually names Tammuz as one of the ancient rulers of Erech. Probability rests with the thesis that the virgin mother goddess and her son and beloved consort who perishes annually arose originally as religious myths. These deities are primitive and older than the idea that royal rulers are patrons of earth's productive powers, and sons of the mother goddess herself. At any rate several of the kings of the Isin dynasty (2358–2133) which succeeded that of Ur, all of whom were likewise deified, appear in one hymn of the Berlin collection identified with Tammuz. The reasons which brought about this remarkable period of god man worship in Sumer are undisputably clear. They identified their savior kings with the dying son of the weeping mother, and believed them the divine redeemers sent to restore a lost paradise.

Assyriologists are fortunate in their study of this phase of religion in that a large number of tablets containing Sumerian hymns and liturgies to these god men have survived. Three long hymns of the cult of Dungi, first of the god men, have been found in the Nippur Library.[1] One of them begins as follows:

[1] One now in the Library of the University of Dublin was obtained from a dealer. This tablet was obviously filched by Arabs from the Expedition of our University. Published in the writer's *Sumerian Liturgical Texts*, pp. 136–140. A liturgical hymn, of which two duplicates have survived, was published by the writer in his *Historical and Religious Texts*, 14–18. Also a hymn to Dungi before he was deified, *ibid.*, 9–13. The second tablet of a liturgy in the cult of Dungi was published by HUGO RADAU in his *Miscellaneous Sumerian Texts* No. 1, Hilprecht Anniversary Volume.

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"Lord who makest glad the land of Sumer,
Who causest devastation to befall the foreign lands,
Who speakest fearful decrees.....,
Whom Enlil[1] chose (?) as the everlasting shepherd of the Land.
Oh divine Dungi, king of Ur art thou.
Whither he turns his eyes he speaks words of assurance.
By the command of Ninlil[2] pious works in the universe he has established."

And a later passage of this hymn compares him with the greatest of the gods:

"He is the unopposable, who is unrestrained.
He that tirelessly eradicates anarchy, art thou.
On the reed-flute I will set forth these matters.
The name of the god king transcends all,
(Like) the name of Enlil whose fixed decree is not transgressed,
(Like) the name of Sin[3] who decreed the fate of the city, whose splendour is unsupportable.
(Like) the name of Babbar[4] attendant of the gods."

In the liturgies to the real gods the singers often represent a god or goddess speaking to the congregation. So also in a liturgy to this immortalized king he stands forth proclaiming on the lips of the psalmists:

"Even as my heroism, as my valour,
In wisdom verily have I been adorned.
By a faithful command may I be directed.
Justice may I love.
Wickedness may I not love.
I am Dungi, the divine, a king that is mighty, a man that excels all.
My name unto far away days be proclaimed.
My glory in Sumer be rehearsed.
In my city may my constructions be established.
The land of the dark headed people as one that tends his sheep may I behold gladly.
The *kids* may *leap* in peace on the mountains."

[1] The earth god.
[2] Consort of the earth god.
[3] The moon god, patron deity of Ur of the Chaldees.
[4] The sun god.

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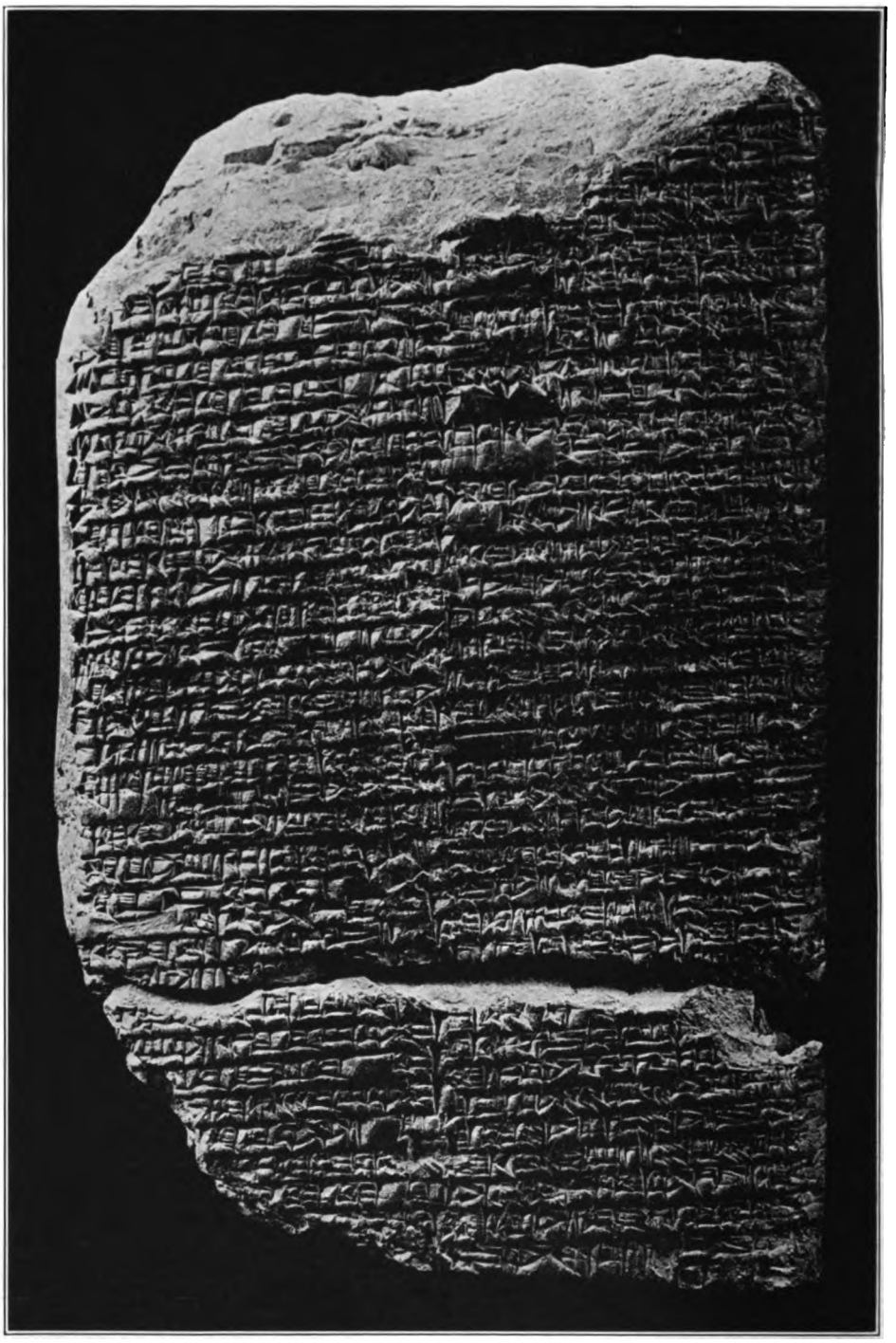

Fig. 63.—Liturgy in the Cult of a Deified King.

Obverse.

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Here we have in the public song services of the cult of the very first god man complete acceptance of the idea that "Divinity appeared living among them." A Messiah had come and he had restored Paradise, which had been ended by the Flood. In fact this same liturgy refers to the Flood and tells how Dungi had come to banish the age of woe which had endured since the bliss of mankind had been ended by that disaster. The Dungi liturgy near the end has the following passage:

"Once on a time the storm, the wrathful word, the deluge gathered all.
The raging storm wind uttered its roar with terror.
The devastating storm with its seven winds caused the heavens to moan.
The violent storm caused the earth to quake.
The rain god in the vast heavens shrieked.
And there were little hailstones and great hailstones.
But now the brick walls of the Temple of the Seal shine with splendour.
A king am I the storm winds [are silenced.]"[1]

In these liturgies which proclaim the arrival of the Messianic Age we hear little of the hope that at last mortality had disappeared. In that period a personal name "Dungi is the plant of life" has been found in the inscriptions; perhaps there was a nascent hope that these saviors had actually banished mortality and death. But men still died and at last the god man died also. The death of the king was easily explained. He, like Tammuz, had gone to rest awhile in the shadowy world, or he had been received among the gods and ruled in one of the stars. Bur-Sin, successor of Dungi, was identified with Jupiter.

But men still died and this they probably explained by the belief that the Messianic Age had not been fully attained.

I venture to think that these liturgies were not sung in the cults of deified emperors after they had passed away, although their worship was otherwise maintained. They do not read like public ser-

[1] This important passage occurs in *Historical and Religious Texts*, page 17, Reverse, Col. I, lines 9–16. It proves that the deified kings were actually supposed to have inaugurated the Messianic Age. The Epic of Paradise, which also belongs to the Nippur Collection, is thus confirmed by the ideas set forth in this Dungi liturgy. The Flood, according to the epic, was sent by the angered creator of men to end the blissful age. And in our hymn to this divine savior we find him praised as the deliverer who now reclaims mankind from the evil age. The word employed in this liturgy for Flood, *marur*, translated into Semitic by *abubu* is the prototype of the word *mabbûl*, employed in Hebrew for the Flood. *Abubu* is also the word ordinarily employed in cuneiform literature for the Deluge or Flood.

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vices which could be sung to any but a living king. They had not a mystical belief in his second coming, nor had they created a religion of redemption through divine suffering in a supreme sense. The very doctrine of the divinity of kings effectively prevented the final evolution of a great spiritual religion like Christianity. For there we have a messiah whose chief attribute is temporal power, a god man who came, lived and departed amid the blessings of the gods. And this temporal power and divine prerogative passed to his son who at once became the subject of a new cult. This was fatal to a long continued belief in a departed god man. As a matter of fact Dungi, like all other deified kings, never secured a permanent place in the pantheon. The chronicles of later ages in recording his reign admit his title as god but for them he is only a man. When his line perished and his dynasty passed all traces of his cult disappear.

The two successors of Dungi, Bur-Sin and Gimil-Sin, received full cult worship; temples were erected to them throughout the empire though their reigns were brief. We possess no liturgies of their worship, but in our collection has been discovered a fine large tablet, a liturgy addressed to Ninurash, god of war, to celebrate the elevation of Gimil-Sin as prince regent during the life of his father.[1] Ibi-Sin, last of the kings of Nippur, reigned 25 years and although he too was canonised and revered as a god man, yet he suffered the humiliation of captivity at the hands of the Elamites. A lamentation on this event has been found on a tablet of our collection in Constantinople.[2] Thus the four demigods of Ur failed even to secure the perpetuation of their temporal power. An usurper from the land of Maer, Ishbi-Girra, claims to have seized the hegemony of Sumer and he founded in 2358 the famous dynasty of Isin which endured to the times of Abraham and Amraphel and counted sixteen kings, all of whom received divine honors. Faith in these mortal saviors had not waned, but, as we see, flourished to the end of the last Sumerian dynasty. And it did not yield to a new religious faith as Roman Emperor worship yielded to Christianity, but this cult passed away because the Sumerians themselves became extinct. The Semitic conquerors who partially adopted this belief in the age of Sargon, rejected it in the age of Hammurapi, or at any rate rejected the

[1] Published by HUGO RADAU, *Babylonian Expedition*, Vol. 29, No. 1.

[2] Published in *Historical and Religious Texts*, pages 5–8. A hymn of Ishbi-Girra, founder of the Isin dynasty which succeeded Ur in the hegemony of Sumer, says that Enlil became angered against Ur and caused Ishbi-Girra, a man of Maer, to seize the foundation of Ur. No. 7772, unpublished. The Nippur Collection possesses three fragmentary hymns sung in the cult of Ibi-Sin, No. 8310; 8526; 13857, all unpublished.

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cult worship of kings. Belief in their divine rights as sovereigns persisted, and an intimate connection between them and nature was held to exist to the days of Nebuchadnezzar. The rulers of Isin appear to have been Semites themselves, but the literature, religion and culture of their reign are thoroughly Sumerian. If god man worship continued here, even in more emphasized manner, it must be attributed to popular belief. The Semites of the Babylonian dynasty, whose state was also Semitic, probably eliminated this cult because they rejected the idea of a man god and also the idea of a restored Paradise. At any rate their poets constructed a great epic in twelve books, known as the Epic of Gilgamish, and the thesis of this work is that man shall never escape the limits of mortality.

Our Nippur Collection seems to have been largely composed during the reign of these Isin kings, I mean the important literary documents of the Museum. During this period the fine and intricate Sumerian liturgies were written, which became the accepted prayer books of Assyria and Babylonia. Many beautiful hymns and liturgies of the royal cults of the Isin kings belong to the Nippur Collection. From these we learn that the canonized rulers were actually identified with the dying god and lover of the mother goddess. A fine Sumerian hymn of seventy-seven lines celebrates the betrothal of Idin-Dagan, third king of Isin, with Ninsianna, the great earth mother goddess, and queen of heaven.[1] The fourth king Ishme-Dagan, who ruled twenty years, has left the impression of his personality upon the literature of his period more than any other sovereign of that age. Two fine hymns of his cult have been recently published and translated.[2] Of him the psalmists of his cult sang:

"May the sun god place justice and righteousness in my mouth,
He the judge, giver of decision, who directs the land,[3]
Who makes justice exceeding good.
The transgressor he pardons, the wicked he destroys.
To justify brother with brother to the father he.....
Not to justify the slander of a sister against the elder brother to a mother *courage he ensures.*
Not to place the weak at the disposal of the strong.....

[1] Published and translated by HUGO RADAU, *Sumerian Miscellaneous Texts* No. 2, and also edited by the writer in his *Sumerian Grammar*, 196–200. Visitors will find this tablet exhibited in Case 21 of the Babylonian Room, in the University Museum.

[2] In the writer's *Sumerian Liturgical Texts*, 143–149 and 178–184.

[3] The choir here return to the third person in speaking of Ishme-Dagan.

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FIG. 64.—Liturgy in the Cult of a Deified King.

Reverse.

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That the rich man may not do whatsoever is in his heart, that one man to another do not anything disgraceful,
Wickedness and hostility he destroyed, justice he instituted.
May the sun god, son whom Ningal[1] bore, my portion fix.
He whom Innini,[2] queen of heaven and earth,
As her beloved spouse has chosen, I am."

A liturgy consisting of two long melodies glorifies him as the patron of nature. Enlil proclaimed that in his reign:—

"The Tigris and Euphrates shall bring thee abundance.... and their banks be full.
In the cellars of the gardens the honey shall reach the edges."

The Berlin Collection contains the twelfth melody in 38 lines of a liturgy sung in his cult.[3]

The fine double column tablet photographed with this essay contains a liturgy in six melodies of the cult of Ishme-Dagan. A few lines have been broken from the top but the greater portion of the 160 lines of this song service are preserved. This composition is an important addition to religious literature and unique among all the choral compositions of antiquity. Here the divine ruler actually appears in a character closely resembling that of the great *mater dolorosa* in the liturgies to the gods themselves. Briefly, the position of the unmarried mother goddess in the long daily liturgies of the temples of the ordinary cults was this. She occupies a position in relation to mankind sharply distinct from all the other great deities. The standard liturgies mournfully rehearse the tribulations of mankind, the glory and power of the great gods, and attribute all human woes to their wrath caused by the sin of men. But the virgin mother in melody upon melody is represented as a weeping mother of mankind, wailing with them before the angry gods. She is the great earth spirit from whom sprang mankind and all living things. Their sorrows are her sorrows. And, like Tammuz, her child, she is responsive to human fortunes. Therefore, the connection between the deified kings and the weeping mother goddess was apparent. He also shares their joys and sorrows, a divine man begotten of a great god and born of the *mater dolorosa* herself, to

[1] The wife of the moon god.
[2] Chief title of the unmarried mother goddess, virgin mother of Tammuz and his lover.
[3] HEINRICH ZIMMERN, *Sumerische Kultlieder aus Altbabylonischer Zeit*, No. 200.

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live among men as men live, to acquaint them with incarnate and tangible deity.

The newly deciphered tablet No. 13856 contains a liturgy to Ishme-Dagan modeled after the standard liturgies of the great gods, more particularly after the weeping mother song services in which the mother goddess Innini under various titles wails with her people.[1] All other public song services, hitherto recovered from the rituals of the cults of deified kings, consist in panegyrics on the divine character of the cult hero. But here the theologians have ventured into the extremity and have constructed a liturgy similar to the weeping mother services replacing the *mater dolorsa* by the man god. In their religious beliefs he was her son and beloved consort, and our new document confirms the conclusion that these heroes occupied in the minds of the believers a position of power over nature and of susceptibility to human experience equal to that of Innini herself.

The first melody contains about 50 lines and began by relating how Enlil had ordered the glory of Nippur, and then having become angered against his city he sent desolation upon her at the hands of an invader.

"For Nippur the city whose shadow extends afar
The people, the dark headed, he caused to have reverence.[2]
But her habitations he cursed.....
Like scattered cows he scattered them.
In the city whose interior is filled with weeping,
While the consort, its divine queen is not solicitous for her,
The great house which knew the cry of multitudes,
Like a vast building in ruins men enter not.
In Nippur where great princes were prosperous, why have they fled?
The people, the dark headed, all of them like sheep are fled (?)
How long shall loud crying, weeping and wailing distress the heart
How long shall souls be terrified
And hearts repose not?
To the drum and loud tambourine will I sing."

This selection from the first melody affords an excellent sample of the first song of most of the daily liturgies. These melodies arranged to

[1] The limitations placed upon this popular exposition excludes a detailed discussion of the standard Sumerian prayer books used in public services. For an investigation in their principles see the writer's *Babylonian Liturgies* (Introduction).

[2] Nippur excavated by the Museum's Expedition was regarded by the entire Sumerian race with peculiar reverence.

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follow each other, often to the number of twenty or thirty in one liturgy, originally referred to a real historical event, and such lamentations were incorporated into the standard breviaries and sung for ages as expressions of human sorrow long after the calamity itself had been forgotten. This melody which inaugurates the liturgy of Ishme-Dagan is probably borrowed from an ancient lamentation.

In the second melody of about thirty lines the divine savior king appears lamenting for human sorrows.

"Her population like cattle of the fields within her have perished.
Alas, my Land! I sigh.
Maid and young man and their children cruelly have been scattered afar, tearfully I sigh.
Their brothers are fled afar (like those driven) by a storm wind.
The household like a cow, whose calf has been separated from her, stand by themselves with sorrowful souls.
They have lapsed into the misery of silence.
Oh sing to the lyre; the wailers like a child nursing mother, who cries in woe, because of them devise lamentation."

Between the second and third melody is a single line of antiphon probably sung by a priest while the musicians prepare for a new score.

"The meaning of the great decrees they glorify. Sorrowful words they restrain not."

In the third melody the psalmists reflect upon the injustice of the city's fate and look for a time when Enlil will be reconciled. The song is of course only a reflection upon an historical event applied implicitly to universal affliction.

"The city whose lord is distressed
Until when shall it not return to its rest? Until when shall its 'How long?' not be spoken?
Why are its brick-walls trodden under foot,
And the doves screaming fly from their nests?
. . . . . .
Bitter lamentation I utter, tears I pour out.
Oh sing to the lyre, he that speaks the song of wailing.
The hearts which are not glad it will pacify.

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The decrees of their lord they have glorified.
He[1] concerns himself not with their oracles, he cares not for their destiny."

Here ends the third melody and a two line antiphon separates it from the fourth.

"His great decrees thus he has ordered.
He has concerned himself not with their oracles; he cares not for their destiny."

In the fourth song the choir again represent the god Ishme-Dagan sorrowing with his people.

"He of melodious song the sorrowful fate weeps for.
Sound of mourning he causes to arise, lamentation he utters.
Now oh sing to the lyre, they that know the melodies.
Now I am filled with sighing.[2]
Her population offer prayers to me.
Now my intercession, my pleading[3]
Even now mightily the population unite with me in making known (to the gods).
Upon ways of pain my mercy,
Oh woe, my children weep for.
In the house, the well built temple, in their dwelling,
Sound like one chanting is raised and praise is diminished."

The fifth melody ends with a passage representing Ishme-Dagan interceding with the earth god.

"Thy heart whose portion has been affliction become for me a glad heart.
Thy head which is held aloof turn unto me to glorify thy portion.
The hostile deeds which he did unto thee be returned upon his head.
In the city which knew not forgiveness let there be given the cry of multitudes."

The last sixth and final song promises the end of Nippur's sorrow. Enlil has ordered the restoration of peace and has sent his beloved shepherd Ishme-Dagan to bring joy to the people.

[1] The pronoun refers to Enlil.

[2] Liturgies pass from first to third or second persons and *vice versa* promiscuously and unexpectedly.

[3] Here the divine savior intercedes for mankind with the great gods.

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"He will have mercy and will decree thy fate.
Unto the brick walls where lamentation arose he will command 'it is enough.'
Thy happy soul he will cause to return for me.
Ninurash the valiant guardsman will sustain thy head.
His pastor he will establish over the city."

These selections will give an idea of the general character and trend of ideas developed in this remarkable cult document. The reader must not infer that the doleful reflections of the choir and their fanciful figure of the divine ruler weeping for a destroyed Nippur actually refer to a state of affairs when the liturgy was sung in the cult of this king. Nippur is only taken as a concrete example of universal sorrow. This song service has a more universal application and a deeper meaning. It describes the miseries of life and the solicitude of the man savior, he who intercedes against the wrath of god aroused by sin. We may, therefore, be modest in claiming for our new tablet a place of peculiar importance in cuneiform literature. The large number of song services of these cults now recovered in our Museum emphasizes once more the supreme fact in the religious beliefs and moral conduct of humanity. To be effective a great religion at one time or another is bound to find "divinity appearing alive among them." The divine and moral measure of this personality has largely determined the character and the success of all great religions.[1]

[1] The reader may wish to know the extent of the hymns and liturgies now recovered from the cults of the remaining kings of Isin. Libit-Ishtar, the fifth king, is the subject of a fine song service in four melodies published by ZIMMERN in his *Kultlieder* No. 199. A fragment of a hymn to Enlibani, eleventh king of the dynasty, belongs to the Nippur Collection in Constantinople and is published as No. 38 in the writer's *Historical and Religious Texts*. A fragment containing the opening lines of a fine hymn has been published in the writer's *Sumerian Liturgical Texts*, 140–2; the king in question is uncertain. Probably Libit-Ishtar.

S. L.

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DUTCH GUIANA POTTERY

THERE have been many changes in Dutch Guiana since 1498, when Columbus first saw its shores. White pirates, explorers seeking the fabulous El Dorado, adventurers, and traders came. Settlements were established with great difficulty and large plantations were developed, especially by the Hebrews. Dutch, French, English and Spanish contended for the country which was finally assured to the Dutch by the English in exchange for New York City by the treaty of Brida in 1667. After the Dutch gained control, the Indians were completely conquered and then granted the best possible terms of peace. The whites were not to enslave the natives but could purchase their prisoners of war. The Indians were thus encouraged to fight among themselves and take prisoners to sell. Negro slaves were introduced at an early time but many of them ran away or rebelled and gained their freedom. These reverted to their former African customs and adopted from the Indians others necessitated by their new environment. Villages of these "Bush Negroes" occur along the borders of the white settlements. Still further in the interior, are the Indians who, being unable to compete or even coexist with the blacks, have rapidly diminished in numbers.

In the upper reaches of the Maroni River on the Dutch side are several Indian villages whose inhabitants still retain many of their original customs and are in as primitive state of culture as they were three centuries ago. Among the women the main domestic art is that of pottery making. While this art has been influenced by the newcomers it still shows that the natives had brought it to a high stage of development before the arrival of the whites. The articles made vary in size from large vessels over two feet in diameter to very minute and elegantly made trinkets.

The taste and skill of the potter determine the form and decoration. A woman may have a favorite form or system of decoration but more generally she is very adept at combining old forms or devising new ones and has a large variety to select from. The best and the oldest shapes have their inception in nature but many good articles are copies of the plates, cups and other dishes used by the whites. The calabash furnishes the model for the simplest sort which are

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usually used as water bottles. Another group has the duck for its inspiration. These duck vessels are frequently made because some of the first buyers expressed a preference for them. Other zoömorphic forms occurring include the peccary, the tapir, the turtle and the fish. By combining two or more of these animal prototypes some extremely fantastic shapes are produced. Double vessels and some composed of three or more elements joined together are very similar in form to prehistoric ones found in both of the Americas.

The clay used occurs along most of the streams near the savannas and is nearly pure white kaolin. Elsewhere and at a little depth the

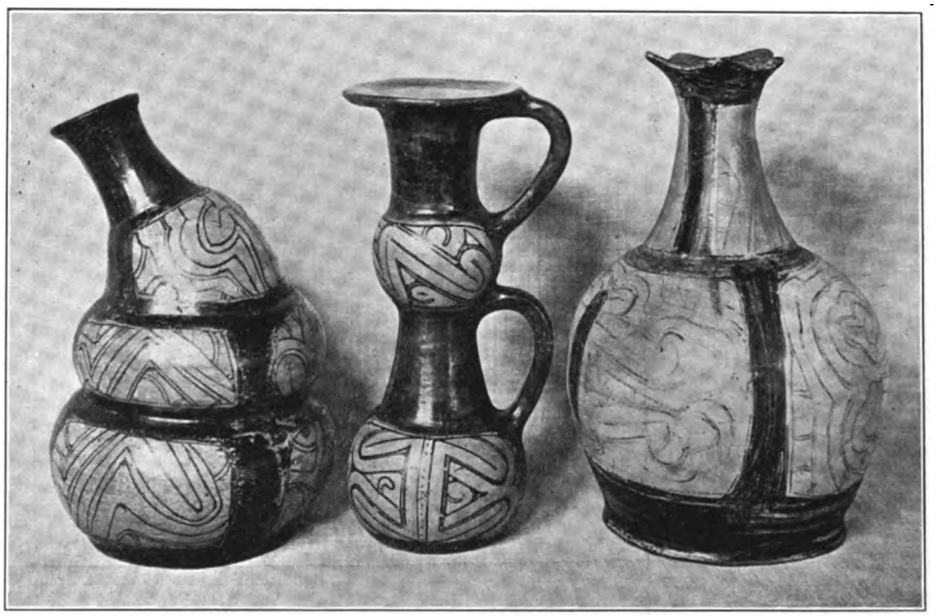

FIG. 65.—Water bottles. Dutch Guiana.

clay contains a small amount of iron, which gives it a red or yellow color. In making a pot a piece of soft moist clay is pressed into shape to serve as the bottom and on this many very thin coils are built up and the whole finally carefully smoothed inside and out with a pebble or preferably an old stone ax head. To make it more elaborate, handles, heads, wings or legs are modeled and stuck on. After drying for a short time the vessel is painted according to the fancy of the decorator. It may simply be smeared over with *ruku* or red paint and burnt over an open fire, or it may have been made of clay mixed with burned *kwepi* bark. In the latter case the vessel burns to a warm reddish yellow color. Designs are painted on and it is again burnt.

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Three colors are used; a red vegetable paint *ruku*, white clay *pimbi doti* and a black paint *taporipa*. They are often combined in different proportions to make new shades. The designs on the modern pottery are usually simple irregular geometric figures made of narrow black or brown lines. They are generally in a salmon or gray colored panel bordered with dark red. The patterns are derived from the conventionalized animal figures found on some of the pots and occurring on many of the early artistic productions of the people. The modern pottery is flat bottomed so that it will stand on a hard surface. Formerly the base was rounded or sharp in order that it would stand firmly in the soft sand floors.

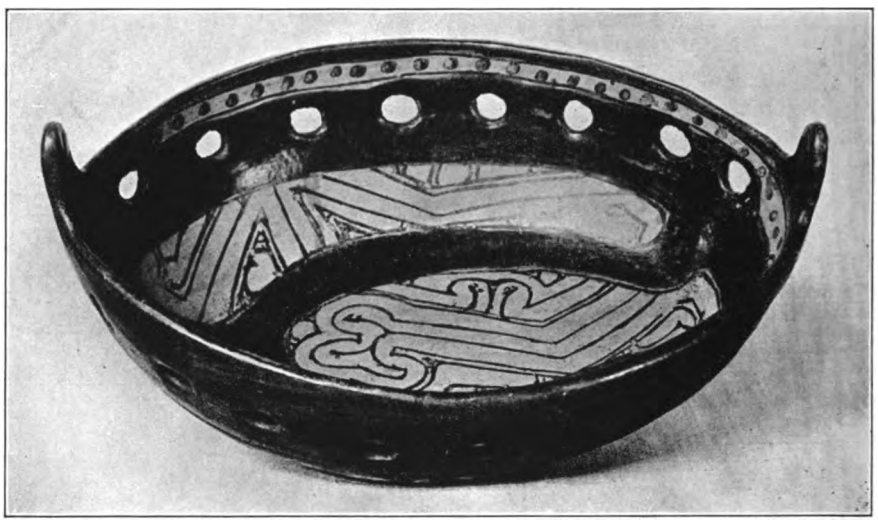

FIG. 66.—Food bowl. Dutch Guiana.

In addition to the extensive domestic need of pottery there has been a demand for it by the traders and travelers. Pots and dishes are used about the camp for storage and cooking, for holding trinkets and as water bottles. As the clay does not become vitrified in burning but remains porous the water bottles are very practical as enough of the water percolates out to evaporate and cool the contents.

Perhaps the major portion of the earthenware is made to sell or trade at the white settlements. Here it brings good prices as the French and other travelers desire to get the articles for souvenirs and decorations. The pottery is also used for domestic purposes by many of the white settlers of the region.

A very valuable collection containing an assortment of this ware

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A B C

FIG. 67.—Typical smaller objects. Dutch Guiana.

A B

FIG. 68.—Double water bottles. Dutch Guiana.

FIG. 69.—Tray form. Dutch Guiana.

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was collected by Mr. T. J. Collins of Haddonfield, New Jersey, and presented to the University Museum some time ago. The pottery of the collection is of greater artistic value than the bags, baskets, fire fans and models of other things used in the daily life of the people.

A few of the unique and interesting specimens are figured in this article, but as most of the pieces are different in form and decoration the entire collection should be seen to realize fully the variety of forms and decoration. This pottery will soon be on display at the Museum.

Fig. 67 c, one of the most common forms seems to be an intermediate stage between the calabash and duck forms. It has been suggested that all of the bird forms are derived from the calabash shaped water bottle. First the artist added a tail to balance the

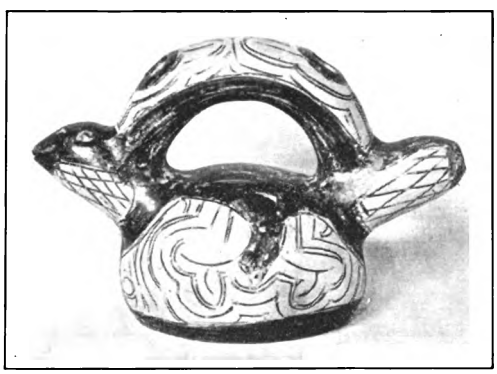

FIG. 70.—Teapot form. Dutch Guiana.

neck. Later he changed the simple mouth to form a duck's bill and finally he added wings, thus completely transforming a very useful article to an impractical ornament. This specimen is five and a half inches long and has salmon colored panels on the sides and back separated by broad reddish chestnut bands. The panels are simply decorated by a lattice design in black. The neck and part of the tail are light chestnut, almost a lemon color.

Fig. 68 a, a double form is a combination of two of the simple bird forms having a common base and a curved connecting handle. It is 5½ inches high and 11 inches from bill to bill.

Fig. 68 b, a double necked bottle has an opening only in the longer neck. It has the usual decoration of broad reddish brown lines between which are lines irregularly arranged at about equal distances from each other.

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Fig. 70, is a crude animal teapot form 9 inches high. It, also, has panels on the sides which are a pale gray color instead of the usual pinkish tint. The neck and tail panels have lines in a lattice arrangement while the others have the more usual irregular patterns.

Fig. 66, a common form is 14 inches long, 10 inches wide and 4 inches deep. Around the rim is a very broad dark red band in which is a white band and a row of holes. The white band is outlined in black and contains a number of black spots. The inside bottom is painted with the customary irregular line decoration while the outside bottom is a lattice design in broad black lines which inclose black spots.

B. W. M.

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A GREEK JOINTED DOLL

THROUGH the generosity of Miss Alice M. Freeman, the University Museum has recently acquired a little terra cotta of extraordinary interest. This is a small female figure, nude, and with arms and legs that fit into joints in the body, to which they are attached by means of thread. Miss Freeman bought this interesting specimen in Athens many years ago, and presented it to the Museum last winter. On the occasion when she brought it to the Museum, she told the writer that it is doubtful whether the head is part of this, or of another figurine. It was decided, however, to join the head to the body, as the fit seemed close enough to warrant the assumption that they belonged together; and, in any case, the real head, if this be not it, was almost exactly the same.

FIG. 71.—A Greek jointed doll.

That this little statuette (it is only fifteen centimetres in height) was a toy, is clear. We can, therefore, look on it with absolute certainty as a doll, the favorite plaything of some little Athenian girl of long ago, in the days when Pericles was great in Athens. Doubtless she used to dress and undress it, to put it to bed and fondle it, just as little girls of today are accustomed to do with their larger and more elaborate dolls. One is tempted to romance about it, and deduce from it that the little girl who owned it died young, and had it, as her favorite plaything, laid to rest in the tomb with her. Moreover, such romancing would probably not be far from the truth.

The existence of dolls like these has been known for a long time, and there are others in existence in museums. Still, they are not com-

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mon, and the acquisition of one by the University Museum is a great piece of good fortune. A similar one, in the Museum of Fine Arts in Boston, will be found published in Fowler and Wheeler's excellent book, "Greek Archæology," page 297, Fig. 220. The Boston specimen is about ten centimetres taller than Miss Freeman's gift, and shows signs of having been painted, faint traces of which appear on this specimen also.

With this gift, Miss Freeman also presented to the Museum a small Attic red-figured skyphos, or two handled cup, of the "late fine" style, which was prevalent in the end of the fifth century B. C. On one side of the vase is a design of a seated youth and a maiden; on the other, an Eros, or love god, and a Maenad. The principal beauty of this little vase lies, not in its paintings, which are of the decadent period, but in the fine, delicate, egg shell clay, and its perfect preservation.

S. B. L.

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A LOAN OF THREE GREEK VASES

THE Museum has had the good fortune to secure a very interesting loan of three Greek vases, all in good condition, and each typical of the period in which it was made. These vases are the property of Mrs. John Kearsley Mitchell, and were acquired by her father-in-law, the late Dr. S. Weir Mitchell.

The earliest of these vases is an œnochoe, or pitcher, made, either in Corinth, or by Corinthian colonists in Italy (Fig. 72). The decoration of the body is characteristic of the Corinthian technique, and shows its "Orientalizing" tendency, the result of the great trade relations existing between Corinth and Asia Minor. It is divided into three bands, or zones, in each of which is a row of animals. The upper band consists of a ram, a lion and a goat; the middle, of four lions, a ram, a swan and a goat; the lower, of three lions and three goats. With a "horror vacui" typical of these "Orientalizing" vases, the field is sprinkled with a profusion of dots and rosettes. Details are rendered by an abundant use of incised lines. The neck and trefoil mouth are plain. At the foot are rays of black on a light ground.

It is hard to determine whether this vase was made in Corinth itself or whether it is "Italo-Corinthian." But it seems to me probable that this œnochoe is a true Corinthian specimen. It is fortunate that there is in the possession of the Museum a good collection of Corinthian and Italo-Corinthian vases, with which it is possible to compare this vase. By looking at a pair of pitchers of Corinthian technique already in the Museum (No. 31, in Case XII of the room to the left of the staircase) it was found that the specimen loaned by Mrs. Mitchell corresponded with them in almost every detail, except that it is smaller, and is undecorated on the neck and lip, while the specimens owned by the Museum have these parts ornamented with rosettes in white.

The preservation of this œnochoe is excellent; although it has been mended in many places, most of the vase is still there. It was made in the late seventh or early sixth century B. C.

The second of these vases is an Attic black-figured panel-amphora, so called because the designs are drawn in black in panels left in the color of the clay, while the rest of the vase is covered with black varnish. This vase is in every respect the finest of the three loaned, and

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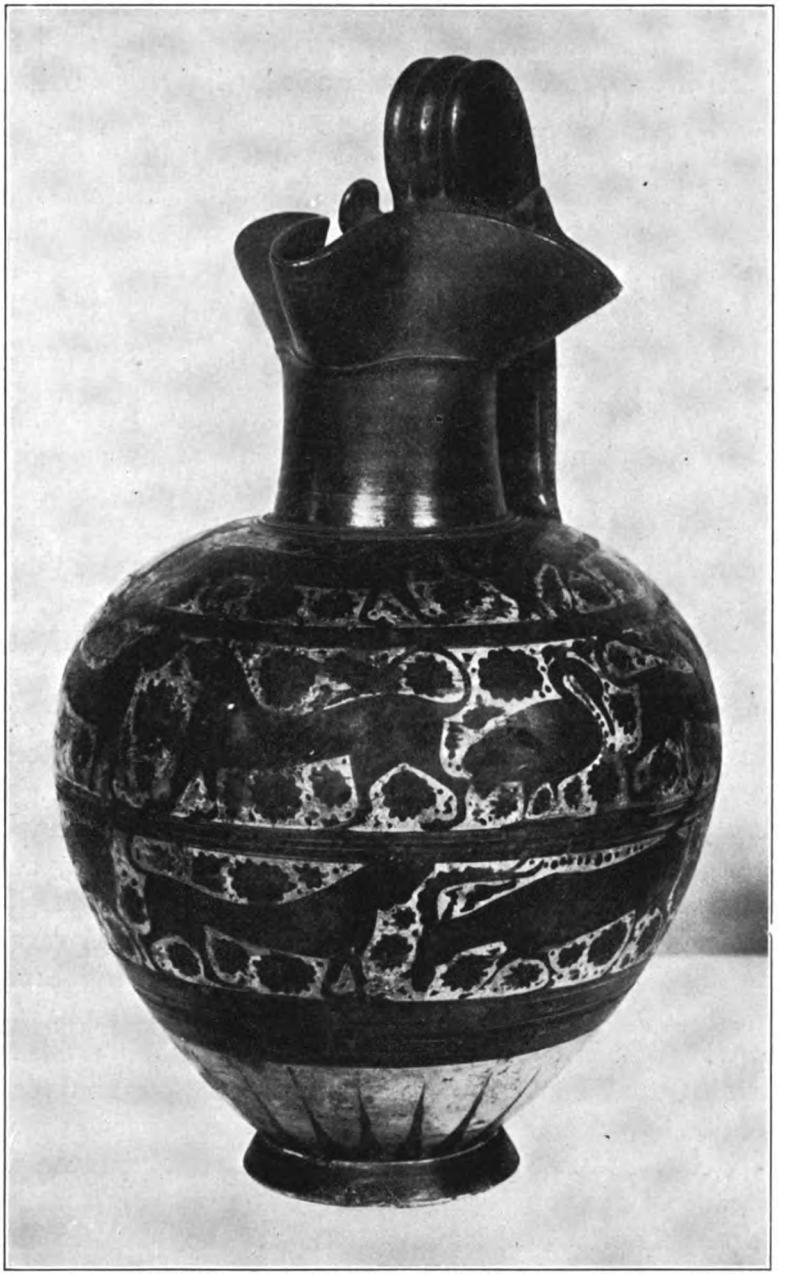

FIG. 72.—Corinthian Œnochoe.

Late seventh or early sixth century B. C.

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in the brilliancy of its glaze and its perfect preservation is not only unsurpassed by any specimen already in the Museum, but is the finest specimen in Philadelphia known to me. It was made early in the best period of the Attic black-figured technique, about 530–525 B. C.

Side A, or the obverse (Fig. 73), has as its design a warrior, facing to the right, wearing a helmet with a high crest, a cuirass, under which is a short chiton, or undershirt, and greaves, and carrying a round shield on his left arm, and two spears in his left hand. He is mounting a light four horse chariot, or quadriga, and holds the reins in his right hand. Beside the chariot are three other warriors facing him, on foot, similarly armed. At the top of the panel is a band of lotus buds.

On Side B, the reverse (Fig. 74), a horseman is seen, facing the left. He is bareheaded, and wears a cloak, called a chlamys, and carries two long spears in his left hand. By accident the vase painter has given the horse two of each leg, or eight legs in all. This is a not uncommon mistake. Details of the drapery of the rider are given in white overcolor, most of which has worn away. On either side of the horseman is a warrior, armed as on Side A. Originally, their round shields were decorated with devices in white overcolor, most of which has gone. Above, as on Side A, is a band of lotus buds.

Besides the white overcolor we find red used on Side A for the manes and tails of the horses, and the greaves of the warriors, while there are also traces of white in the legs of one of the horses. Details of drapery and anatomy are in all cases rendered by a very copious use of incised line drawing, done with painstaking accuracy and skill. The base has a ray pattern in black on the color of the clay.

There are several indications that tend to put this vase in the beginning of the best black-figured period, or in the neighborhood of 530 B. C. They are minor details; the stiffness and archaic quality of the drawing in this case is not such a good criterion, as this stiffness is to a certain extent characteristic of the entire black-figured technique. I will mention, however, two of these points, that prove the vase to be of early date. The first is the absence of palmettes, and the presence of lotus alone at the top of the panel. The palmette later becomes almost inevitable on all vases; but the use of the lotus antedates the palmette. It is true that this lotus chain found on this amphora is found on red-figured vases by Euthymides in the fifth century; but it is always in conjunction with palmette ornaments as well. It is the absence of the palmette that is significant.

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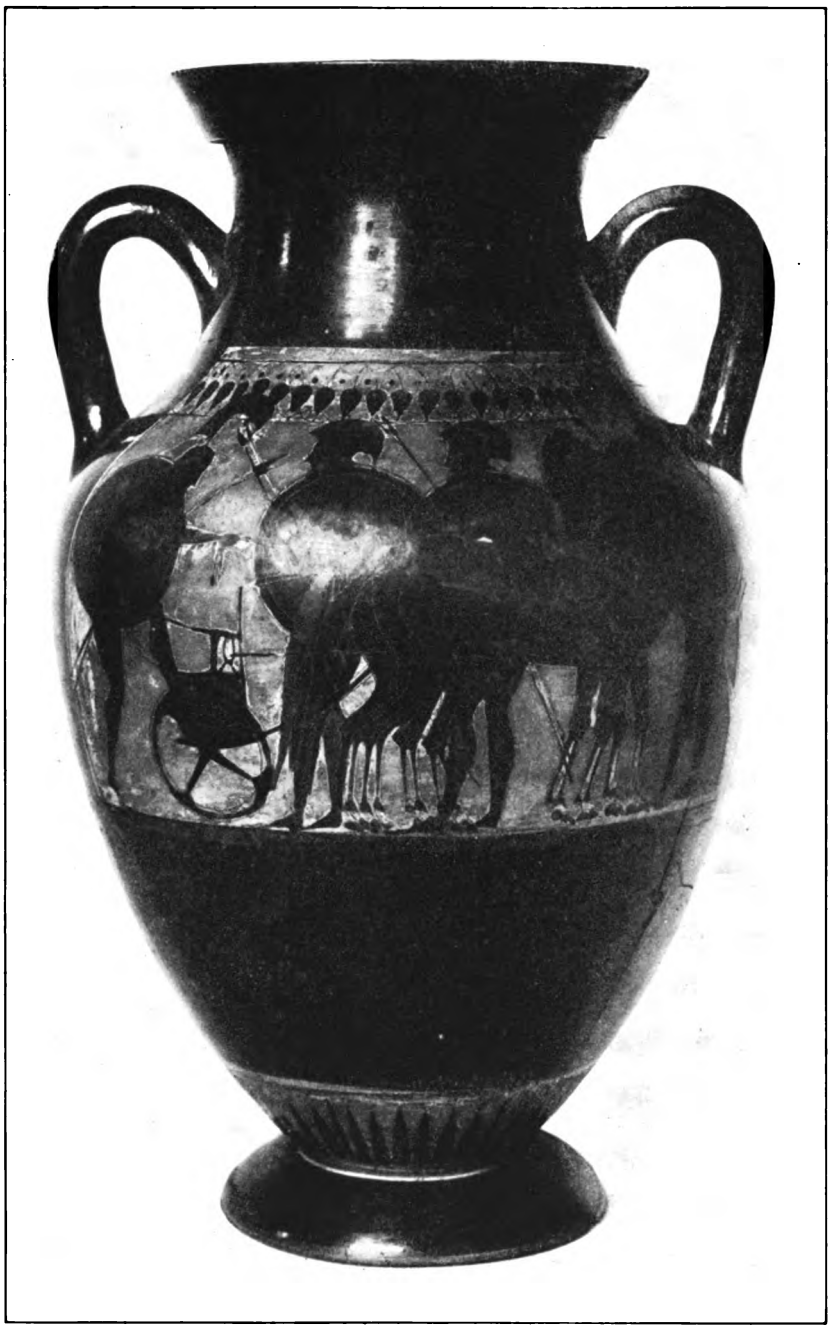

FIG. 73.—Attic black-figured panel Amphora.

A. Warrior mounting a chariot in the presence of three other warriors.

Ca. 530–525 B. C.

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The second point lies in the handles. The later panel amphorae nearly all have flanged handles. The round handles on this vase, coupled with the absence of palmette decoration, point to the early date in the black-figured technique assigned to this specimen.

The third vase takes us away from Greece, and brings us down a little over a century later. At this time, when the Peloponnesian War was raging, and when Athens went down to defeat in the Sicilian Expedition, she lost more than her military prestige and political supremacy; her commercial predominance in the ancient world departed as well. During the fifth century the Athenian potters and vase painters had driven all others out of competition. Attic vases were exported all over the ancient world, and were prized by lovers of the beautiful in Italy, in Asia Minor, in the Islands, and even in the Crimea, as the excavations show us. When, therefore, the Peloponnesian War broke out, and the supply of Attic vases was automatically diminished, if not altogether stopped, it was natural that wares in imitation of Attic should arise.

This is true especially in Southern Italy, among the Greek colonists there. Three or four styles can be distinguished one from the other, of these imitative wares. They take their names from the localities in which they are found, and are (1) the so-called "School of Paestum;" (2) the Lucanian; (3) the Campanian; (4) the Apulian. It is to this last class that our third specimen belongs.

A few words about the Apulian ware may not be out of place before passing to the formal description of this vase. It is the largest class in point of the area covered, and the most numerous in point of specimens found, of any of the South Italian techniques. Every shape of vase known to the Attic potter was made by the Apulians; and certain forms, like the enormous kraters, or mixing-bowls, with volute or medallion handles, so common in the Musee Nazionale at Naples,[1] they may be said to have developed and made their own. At first they imitated quite closely the vase painters of Attica; later, however, they developed a peculiar style, that is almost unmistakable, and finally they degenerated to a very poor, florid, decorative manner. The places where Apulian vases have been most commonly found are the following ancient sites: Tarentum (the modern Taranto); Canusium (the modern Canosa di Puglia); and especially Rubii (the modern

[1] A good example of this kind of vase, perhaps the best in America, is on exhibition in the Museum of Fine Arts in Boston.

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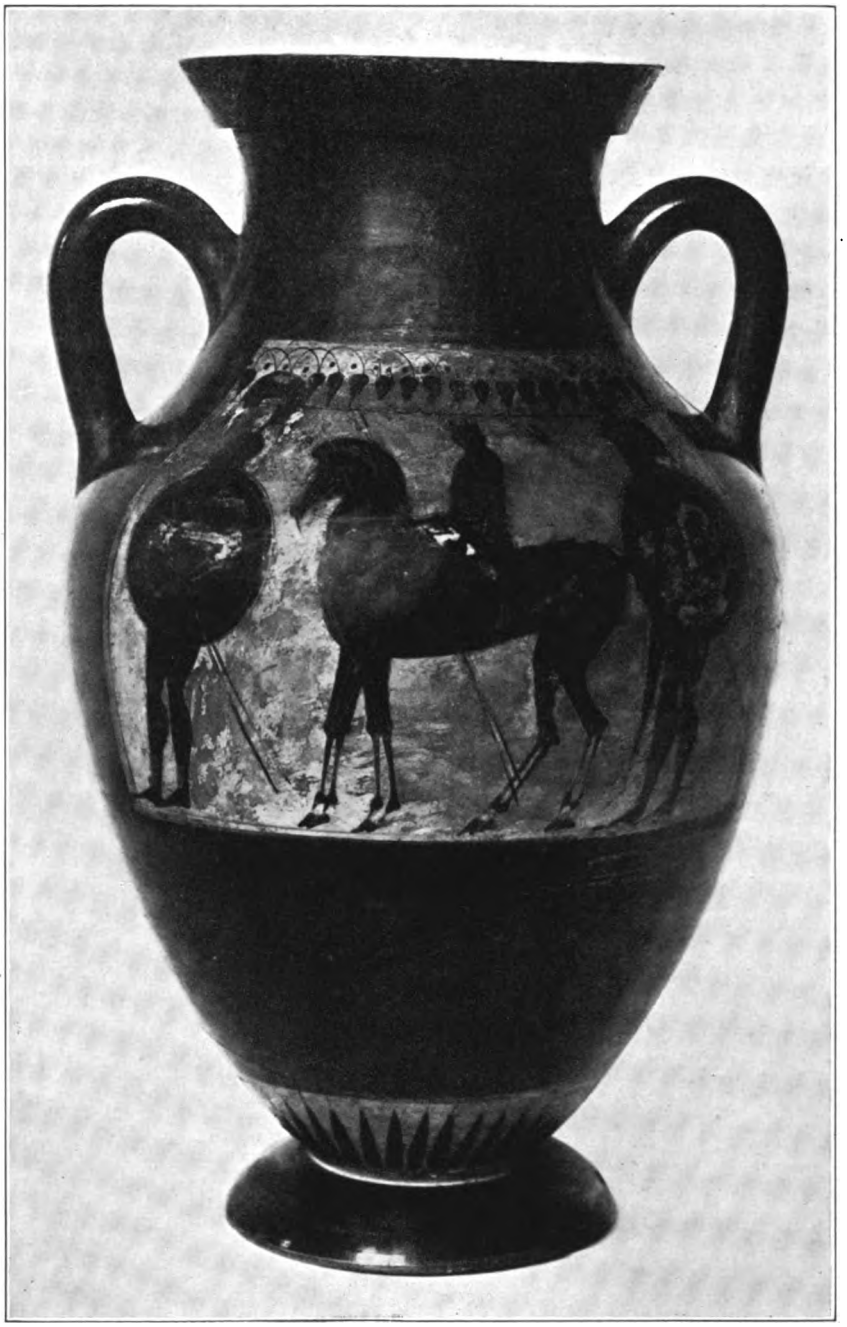

FIG. 74.—Attic black-figured panel Amphora.

B. Horseman and two warriors.

Ca. 530–525 B. C.

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Ruvo di Puglia). The best collections are in Italy, in the museums of Naples, Taranto, and Bari, and the Jatta Collection at Ruvo.

The vase under discussion is a good example of the Apulian style, as it was on the point of departing from the Attic models, and

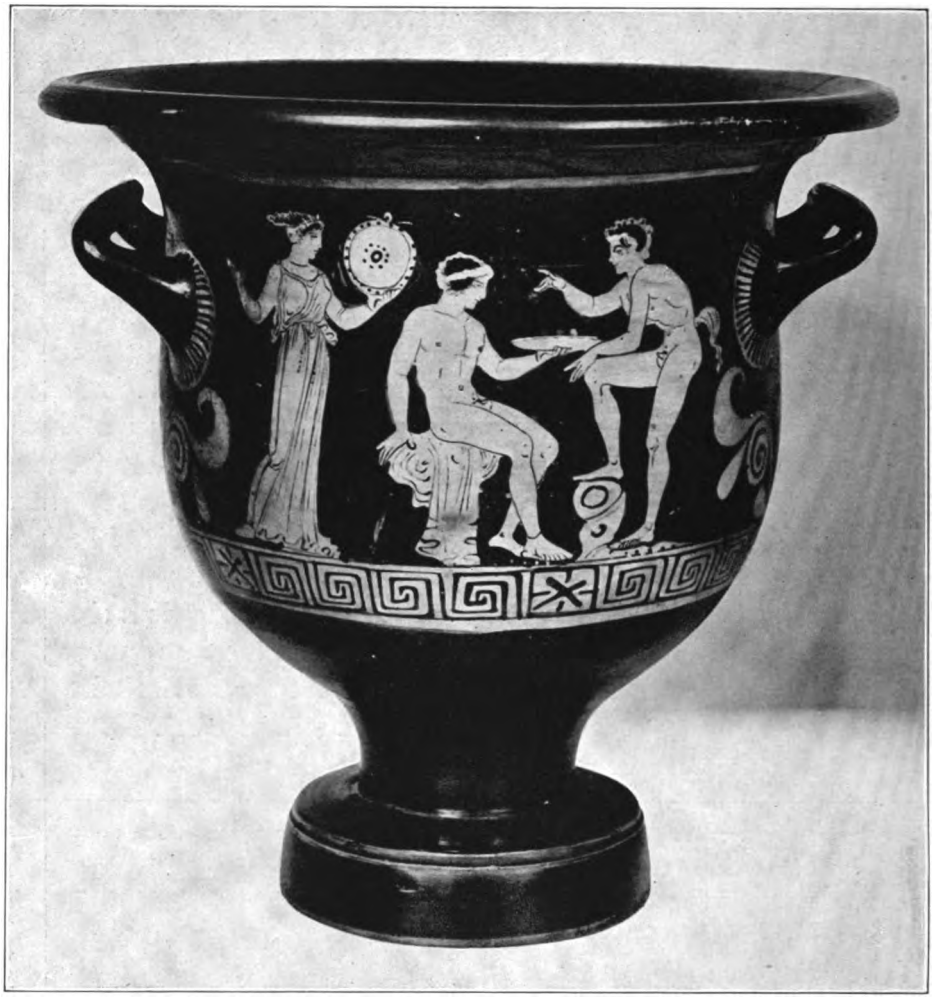

FIG. 75.—Apulian Bell Krater.

A. Youth, maiden and satyr.

Ca. 400 B. C.

developing its own peculiar features. Its relatively early date (ca. B.C.400) is proved by the absence of overcolor. On a later specimen, e.g., in the exhibition room to the left of the staircase, No. 94 in Case XIII, the woman on Side A would be done in white. More emphasis would be

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laid in a later specimen on the dots under the feet of the seated youth, to represent the ground, a trick peculiar to the Apulian technique. Otherwise, the drawing of the vase, in its freedom of execution, and the type of design, shows what might be called the typical early Apulian

FIG. 76.—Apulian Bell-Krater.

B. Two youths.

Ca. 400 B. C.

manner, free from most of the Atticism of the earlier, or "Atticizing" period.

In shape it is what is called a bell krater, from the bell-like form. The handles are placed near the lip. This shape was invented in

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Athens in the fifth century B. C., in the period of the Attic red-figured technique. No black-figured vases of this shape are known to me. In this specimen, as in the Apulian vases generally, the red-figured technique is employed.[1] Around the lip, a wreath of laurel is painted; under the handles are large palmettes; and below the principal designs, a meander pattern.

The principal design (Fig. 75), has as its central figure a seated youth, facing the right. He is nude, and sits on his garments. In his left hand he holds a large bowl or basin, of a kind of which many examples have been found. Facing him is a nude youthful Satyr, gesticulating with his hands, with his right foot resting on a rock, so that the leg is bent. Behind the youth is a woman, dressed in a long chiton bound around the waist by a girdle, to leave a fold, known as a kolpos, just above the girdle. In her left hand she holds a large round object which seems to be a tambourine, as her right hand is drawn back to strike it. This woman is a typically Apulian figure.

The reverse (Fig. 76) has two youths meeting each other. The one at the left is standing still; he is draped in a himation, and carries a staff. The one at the right moves towards him. He is nude, and carries his himation on his left arm. He has a staff in his right hand. Between them, in the field, is a round, disc-like object.

It is a pity that no information is available as to the finding place of these vases, as they would thereby gain in archaeological interest; but artistically they are very fine, and the Museum is very grateful to Mrs. Mitchell for depositing them in its care.

S. B. L.

[1] A few small Apulian vases, mostly lekythoi, or oil-jugs, with black figures, are known, but they are rather rare, and are not pleasing in an artistic sense. There are three of these lekythoi at Memorial Hall, Philadelphia.

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THE CHINESE EXPEDITION

AS announced in the last issue of THE MUSEUM JOURNAL, Mr. Carl W. Bishop, leader of the Museum's Chinese Expedition, arrived in Japan March 21st on his second tour of investigation. Three weeks were spent in research and study of Chinese art, including a trip to Sendai, which is a noted center of Japanese antiquities. Mr. Bishop visited a number of artificial caves of unknown age, known locally as Yezo-ana (or Ainu Caves), supposedly dating back to the Ainu period. He hazards an opinion that the caves were excavated by a colony of Buddhist monks, partly as shrines and partly as cells, perhaps not long after the conquest of the region by the Japanese in the Eighth Century.

Mr. Bishop reached Peking late in May only to find all China in a disturbed condition. In part this was due to the unsettled political situation, in part to an unusual drought and in great measure to the enhanced value of silver which had upset all commercial and financial calculations. Prices of all commodities had risen and labor costs naturally increased proportionately.

Under date of June 25th Mr. Bishop writes:

"During the first few days after my arrival in Peking I looked up a number of people who were in a position to give me information and advice. I had a very interesting interview with our Minister, Dr. Reinsch, who is a great friend of the Chinese. I explained to him the efforts being put forth by the University Museum to throw light on China's past through the medium of archaeological research, and he very cordially promised to do everything in his power to further our efforts.

"I met Dr. Ferguson soon after my arrival, and learning that he and Dr. Bosch Reitz were going to the Lung Men grottoes, near the old Wei and T'ang capital of Honan Fu, I arranged to go with them. We left Peking the 30th, going first to Kaifeng Fu, the old capital of the southern Sungs and the former seat of an ancient Jewish colony. While we were in Kaifeng the rebellion of the military leaders took place, but as there was no antiforeign element in the disorder we decided to go on to Honan Fu and visit the Lung Men grottoes. By the time we had got to Honan Fu the rebellion

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had taken the form of commandeering rolling stock on the railway for a move of troops on Peking, and Dr. Ferguson said we were in danger of being cut off indefinitely in this remote corner of Honan province. Consequently we cut our visit rather short, although I succeeded in getting some very fair photographs which will serve to illustrate the progress of Chinese sculpture.

"Upon our return to Peking on the 4th inst. I proposed a visit to the famous grottoes of Yün-kang, near Ta-t'ung Fu, in northern Shansi, which were excavated and carved during the early northern Wei, before the removal of the capital to Honan Fu. Mr. Bosch Reitz and I proceeded to Ta-t'ung Fu by rail and then on to the grottoes by cart, sleeping one night there in a temple and taking quantities of photographs. We found the place much more interesting than Lung Men, and I hope to visit it again and get additional notes and pictures.

"The heat here is something terrific, averaging well over a hundred, and with no prospects of alleviation before the beginning of September. It is much worse than I found it two years ago, I suppose on account of the lack of rain. The dust of course makes things much worse and sifts in everywhere."

It was unfortunate for Mr. Bishop's plans that the disturbed condition of the country made it impossible for him to commence his explorations in the interior but meanwhile he was engaged in preparations and in acquiring a better knowledge of the Chinese language. Then the counter-revolution broke out which lasted for a few days and collapsed. Mr. Bishop's diary of events is so concise and at times so graphic that it is here (for the most part) reproduced.

"JULY 1. This morning about three o'clock Chang Hsun, the commander of the 'pigtailed' troops, restored the little Manchu emperor to the throne, and by police orders the old dragon flag is flying from every shop front. The prevailing impression is that the restoration will not be lasting.

"JULY 5. A mounted messenger from the Legation Guard came with a notice to prepare to take refuge in the Legation at a moment's notice, so I got my papers, journals, photographs, firearms and ammunition packed up for instant removal. Spent the rest of the day at the Wagons Lits Hotel and the Club; refugees, foreign and native, flocking into the Legation Quarter with their goods, and even the courtyards crammed with campers. All com-

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munication with the outside cut, and everybody apprehensive. Republican troops reported on the way from Tientsin to oust the Imperialists, who have cut the railway.

"JULY 6. This evening a special train got through from Peking with American, Japanese, and French colonial troops, in all about 250, as a reinforcement for the Legations, and people feel much easier. Upham and I decided not to take refuge in the Legation Quarter, as we both had valuable stuff, including all my outfit, which we did not care to leave to looters, and which we would not be allowed to bring into the Quarter with us.

"JULY 7. Fighting yesterday southwest of town, and reported that the Imperialists are being driven back on Peking. Upham and I volunteered to ride out and try to see what was actually going on; meant to ride around left wing of Imperialists and get in touch with Republicans, but found former extending much further east than anyone thought, and were turned back, though treated courteously.

"JULY 10. Saw Dr. Cather, the post surgeon, as I have never fully recovered from the touch of the sun that I got on June 28th; he prescribed for me, and would take nothing, as he said he was an old University of Pennsylvania man, and glad to help on anything connected with the University.

"JULY 12. Awakened about 4.30 A. M. by heavy firing, the Republican troops having attacked the Temple of Heaven and Chang Hsun's residence in the Forbidden City. Mr. Upham and I at once ordered breakfast and then went up on the city wall to see what was going on. It was a pretty sight, with shrapnel bursting, two aeroplanes circling overhead, horse and foot dodging among the streets in the Chinese city, and rifles, machine guns, and artillery going off incessantly. Stray bullets flew all about, and hardly a compound in town but was struck.

"Early in the engagement the Imperialists holding the outer tower of the Chien-Men, the great south gate, turned a machine gun on us foreigners on the wall and there were several casualties, one man receiving four wounds, while another will probably die; nearly all those hit were Americans. Legation Quarter closed and barricaded, and guards all on duty, with machine guns ready for action. Stopped at the Hotel on my way home and after lunch took a nap. When I awoke the firing had ceased, and I learned eventually that the 'pigtails' had surrendered at the Temple of Heaven about eleven, upon which Chang Hsun fled to the Dutch Legation, and his men in

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the Forbidden City fought until about two thirty, and then surrendered also. Considering the amount of ammunition expended, the casualties were surprisingly low. It speaks well for both sides that there was no looting and practically no interference with non-combatants save what these brought on themselves by getting too close to the firing. Martial law this evening, but everything quiet.

"JULY 13. Went around getting photographs of the scenes of yesterday's fighting. Chang Hsun's palace a perfect wreck, having been shelled and then burnt; the ruins were still smoking, and all around, both inside and in the street, were cartridges, broken weapons, bloody caps and boots, dead horses, furniture, papers, and dêbris of all kinds. I believe I got some very good photographs, although they are not yet developed. Although the counter-revolution was of short duration political conditions remained more or less uncertain. Fortunately the long drought was broken but in many cases the damage to crops by flood was as severe as that by the heat. A trip to Shanghai in search of some ancient and rare books on Chinese art was successful."

In a letter dated August 14 Mr. Bishop writes:

"Yesterday I received a most cordial note from Professor Sayce, who is summering at Miyanoshita, a hill resort in the Mt. Fuji region, inviting me to come and see him, and to accompany him on a visit to the famous old ninth century monasteries at Mt. Koya (Koya-san) in the mountains south of Kyoto. They are reputed, I think with good cause, to have been founded by the Japanses monk Kobo Daishi, who was, if tradition is correct, an Admirable Crichton, a Michael Angelo, and an Apostle Paul rolled into one. At least it is pretty certain that he studied in China during the great T'ang period, in the very region which I plan to visit this fall, and that he brought back with him valuable manuscripts. Professor Sayce writes, 'Dr. Kuroito, of the Institute of Historical Compilation, is to come too, in order to establish a museum for the conservation of monastery "treasures."' Undoubtedly the occasion will be an important and an interesting one, and I hope that nothing will occur to keep me from being one of the party.

"Among other things I have been diligent in securing as fine a collection of photographs of all kinds as possible, particularly with a view to making slides. For one thing, I have adopted the plan of carrying with me a box of water colors, and roughly coloring prints on the spot, to serve as guides in coloring the slides themselves. In

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this way I hope to have a large number of slides to serve as adjuncts to talks on a large variety of topics calculated to interest the public in connection with our work."

If Mr. Bishop has been enabled to carry out his plans, he is now actively engaged in exploring the ancient art centers of the interior.

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NOTES

The two expeditions to Alaska under the liberal patronage of Mr. John Wanamaker are accomplishing good results and have already sent valuable collections to the Museum. Mr. Louis Shotridge is continuing his studies among his own people, the Chilkats, in Southeastern Alaska. Mr. W. B. Van Valin, who arrived at Nome in July, has sent back some very interesting archaeological and ethnological specimens from that regions. He expects to spend the winter among the Eskimo along the coast between Nome and Point Barrow.

Mr. Alfred Hendrickson has presented to the Museum a stone axe found by him near Swedesboro, New Jersey.

Dr. Charles D. Hart has presented an elaborately carved dragon from China.

Miss Florence Sibley has presented a valuable collection of Egyptian scarabs and amulets.

Mr. John B. Stetson has loaned to the Museum a mummified head of an Indian collected 200 years ago at the foot of the Andes, and formerly in the Alvarado Collection at Quito, Ecuador. Mr. Stetson has also placed on loan a beautifully decorated shirt of bark, an elaborate feather headdress, a native spear and other implements.

Miss Emmeline Goodman has placed on loan in the Museum an American Indian collection consisting of fine Navaho blankets, Sioux beadwork, California baskets, and costumes from the Northwest Coast.

Mrs. John Kearsley Mitchell has kindly loaned to the Museum a valuable collection of pottery. Three very interesting Greek vases from the collection are published in the current number of the JOURNAL.

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Letters have been received from Mr. Alexander Scott stating that he expects to return to this country early in 1918. Mr. Scott has been collecting for the Museum in India since 1915 and will bring back with him the results of his work.

The George G. Heye North American Indian Collection which has been on exhibition for the past eight years, has been withdrawn from the Museum and will be exhibited in the new Museum of the American Indian in New York which has been founded by Mr. Heye.

The halls formerly occupied by the Heye Collection will now be devoted to the collections made by the recent South American Expedition and to other collections of the North and South American Indians which have been in storage owing to lack of sufficient exhibition room. The work of installing these new collections will occupy several months.

Dr. G. B. Gordon, the Director of the Museum, is away on a six months' leave of absence and Dr. Farabee has been appointed Acting Director in his place.

Mr. H. U. Hall, the Assistant Curator of the Section of General Ethnology, left the Museum on July 15th in order to give his services to the country. He is now with the Second Pennsylvania Field Artillery at Camp Hancock, Augusta, Georgia.

Mr. B. W. Merwin, the Assistant Curator in the American Section, left the Museum on September 18th for military service. He is stationed at Macon, Georgia.

Since the last issue of the JOURNAL the Museum has published in the Babylonian Series a work by Dr. Stephen Langdon, Curator of the Babylonian Section, entitled A GILGAMISH EPIC.

Dr. Langdon will leave this country during September to give a course of lectures at Oxford University. He expects to return to the Museum in the early part of 1918.

The Museum has published in the Anthropological Series, Dr. Franz Boas' work on GRAMMATICAL NOTES ON THE LANGUAGE OF THE TLINGIT INDIANS.

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The Museum has published reproductions by the photostat process of two manuscripts in the Berendt Linguistic Collection. One of these manuscripts, DICCIONARIO POCOMCHI-CASTELLANO Y CARTELLANO-POCOMCHI, is the work of a Dominican missionary written about the end of the sixteenth century. It was presented to Dr. Berendt in 1875 by the cura of San Christobal Cahcoh in Guatemala. The second manuscript, PLATICAS DE LA HISTORIA SAGRADA EN LENGUA CACCHI, was written in the seventeenth century. Both manuscripts form part of the Daniel Garrison Brinton Collection in the Museum library.

LECTURE COURSES

The Saturday afternoon course of illustrated lectures for the public and the Wednesday afternoon course for the schools of the City will be continued during the coming fall and winter.

The lectures of the Saturday program are as follows.

November 10. Alexander Hamilton Rice, Some Notes and Results of Several Journeys of Exploration in the Northwest Amazon Basin.

November 17. Henry E. Crampton, Among the Islands of the South Pacific Ocean.

November 24. Charles Wellington Furlong, Tripoli, The Gateway of the Sahara.

December 1. James Henry Breasted, The Story of the Pyramids.

December 8. Donald B. MacMillan, The Crocker Land Expedition and the Smith Sound Eskimo.

December 15. Roy Chapman Andrews, A Trip through China.

January 5. Lecture to be announced.

January 12. Joseph K. Dixon, The Indians of North America.

January 19. Christian Leden, Among the Eskimo of Greenland and Canada.

January 26. Fred. A. Pape, Intimate Reminiscences of Equatorial East Africa.

February 2. George A. Chase, Recent Excavations in Asia Minor: Sardis, Miletus, Didyma.

February 9. Joseph M. Rogers, How Man Learned to Write.

February 16. Lecture to be announced.

February 23. Langdon Warner, Early Chinese Sculpture.

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March 2. Alexander Scott, The Art of India and Tibet.
March 9. Charles Eastman, Indian Wit, Humor, Poetry and Eloquence.
March 16. Stephen Langdon, Babylonian Music and Temple Worship.

The lectures of the school program are as follows.

November 7. Roy Chapman Andrews, The Chinese at Work and at Play.
November 14. Mrs. Joseph M. Dohan, Social Life in Crete 2000 B. C.
November 21. Charles Wellington Furlong, Adventures among the Big Patagonians.
November 28. Mrs. Alice McKay Kelly, The People and Customs of the Philippines.
December 5. Stephen B. Luce, Jr., The Gods of Ancient Greece.
December 12. Theodoor de Booy, The Virgin Islands (Formerly the Danish West Indies).
December 19. Pe-ahm-e-squeet (Floating Cloud), My Childlife among the Ojibwas.
January 9. Herant Baron Matteossian, Constantinople.
January 16. Joseph K. Dixon, The Indians as Hunters and Warriors.
January 23. Christian Leden, Manners and Customs of the Modern Eskimo.
January 30. Alanson Skinner, Across the Florida Everglades.
February 6. Joseph M. Rogers, The Pyramids and Temples of Egypt.
February 13. Henry Collins Walsh, Morocco and its People.
February 20. Wm. Curtis Farabee, My Life Among the Wild Tribes of the Amazon.
February 27. Clarence P. Bill, The Young People of Ancient Greece.
March 6. Charles Eastman, An Indian Childhood.
March 13. Walton Brooks McDaniel, Modern Reminders of Ancient Italy.
March 20. Walton Brooks McDaniel, Ancient Ghosts and Gods.
March 27. Joseph M. Rogers, Native Life in Egypt.

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FORM OF BEQUEST

I give and bequeath to the trustees of the University of Pennsylvania the sum of.....dollars, in trust for the uses of the University Museum. (Here specify in detail the purposes.)

MEMBERSHIP RULES

There are four classes of membership in the Museum:

Fellows for Life, who contribute..... $1,000
Fellowship Members, who pay an annual contribution of..... $100
Sustaining Members, who pay an annual contribution of..... $25
Annual Members, who pay an annual contribution of..... $10

All classes of members are entitled to the following privileges. Admission to the Museum at all reasonable times; an invitation to any regular reception given by the Board of Managers at the Museum; invitations and reserved seats at lectures; the Museum Journal; copies of all guides and handbooks published by the Museum and free use of the Library. In addition to the privileges to which all classes of members are entitled, Sustaining Members and Fellows receive, upon request, copies of all books published by the Museum.

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UNIVERSITY OF PENNSYLVANIA

THE MUSEUM JOURNAL

PUBLISHED QUARTERLY BY
THE UNIVERSITY MUSEUM

FOR ART
FOR SCIENCE
FOR CIVILIZATION

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REPORT OF THE DIRECTOR FOR THE YEAR 1917

To the Contributing Members of the University Museum.

The Museum started the year which is now coming to a close with a good outlook. There were many grounds for encouragement and we were able to look forward with continued confidence to a year of increased usefulness and larger activity. The loss sustained through the death of Mr. Coxe was in a measure repaired by the generous provision made by him in his will. The Museum is at the present time benefiting by this provision because it has within the year come into possession of Mr. Coxe's bequest.

The City of Philadelphia for the first time made an appropriation from the public funds to supplement the funds of the Museum. The $25,000 appropriated by the City was given to sustain and reinforce a work already established and an educational institution which had been created for the welfare of the City without expense to itself. Whatever moneys the City may see fit from year to year to appropriate for this purpose is to be regarded as an investment on behalf of public education, because the collections acquired by the Museum either through these funds or through its own funds or through private gift are a part of the permanent educational equipment of the City and are free to the public at all times. These collections are increasing in value rapidly from year to year.

As we started upon the year 1917 Dr. Charles C. Harrison was elected President and the Board of Managers was strengthened by the election of Mr. C. Emory McMichael to fill the vacancy made by the death of Mr. Coxe.

The political and economic events of the year both at home and abroad have been entirely unfavorable to constructive work in the Museum. Nevertheless it will be seen from this report that it has been one of the most successful years in the Museum's history.

There have been several resignations. Mr. E. W. Clark, for some years a Vice-President, resigned from the Board after a long period of service during which he gave generously to the funds of the Museum.

Mr. B. Franklin Pepper, for twelve years Secretary and a member of the Board, resigned because he was about to enter the military service of the country.

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Mr. George G. Heye resigned because, having acquired a leading interest in a Museum in New York, he withdrew the collections which had been deposited by him in this Museum for eight years and will now devote all of his time to the development of the Museum of the American Indian.

The staff of Curators has been maintained at the same strength as last year except that Mr. H. U. Hall, the Assistant Curator of the Section of General Ethnology, entered the military service.

The Museum was kept open every day during the year and 53,594 persons visited the exhibitions.

The course of public lectures on Saturday afternoons was continued until March and was resumed again on the 10th of November, when Dr. Alexander Hamilton Rice gave a very interesting description of his South American explorations. On the same occasion the newly installed South American collections assembled by Dr. Farabee during his three years' exploration in the Amazon valley were opened to the public. These exhibitions were seen and admired on that day by one thousand people. During the season of 1916–17 20,000 people attended the lecture course.

Teachers and pupils of the public schools have availed themselves of the Wednesday afternoon lectures which are found by the teachers to supplement in a way satisfactory to them the work of the schoolroom.

In April last a special exhibition was arranged, of which the members of the Museum had a private view, and it was kept open to the public in its entirety for about three weeks. This special exhibition consisted of a number of Chinese works of art of a kind supplementary to the Museum's collections; it also contained a series of European tapestries which were lent by the firm of P. W. French & Co. of New York. Three of these tapestries have since been removed and seven of them still remain hanging upon the walls of Harrison Hall as a loan.

The Eckley B. Coxe Jr. Egyptian Expedition continued its work during the year at Memphis with a short season at Dendereh. The reports received from Mr. Fisher, the Curator of the Egyptian Section, who is in charge of this expedition, show that at Memphis the expedition has undertaken a very important and highly creditable task of clearing the ruins of the Royal Palace of one of the ancient Pharaohs. Its foundations are buried at a depth of from eighteen to twenty feet in the débris, and the ruins of buildings of

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three later periods stand at different levels above it. As Memphis was the capital of Egypt and a city of first importance from its very earliest times until its latest, it was natural to expect that a royal palace at that place would be a structure of special interest and grandeur. It might be expected that discoveries would be made during these excavations which would enrich the collections in the Egyptian Section of the Museum. The discoveries of the Eckley B. Coxe Jr. Expedition have justified these expectations. Although the work is necessarily slow owing to the great depth and the great mass of material to be removed, we may feel satisfied that the results have repaid, in new collections for the Egyptian Section of the Museum, the money and labor that have been involved.

A large number of the objects discovered have been assigned by the Cairo authorities to the University Museum. These are at present stored in Egypt and will not be shipped until shipping is safer.

Although the present is obviously no time to begin building operations, it is proper that we should keep in mind at all times the needs of the building and that we should look forward to the time when conditions will be more favorable for the development of this part of our work. In this forward outlook the needs of the Egyptian Section are in the foreground. The new collections which the expedition now at work in Egypt is securing cannot be kept in the rooms of the Egyptian Section, nor is there any space in the present building which will be adequate to take care of these collections and make them properly available for the scientific and educational uses of the Museum. The only way in which these collections can be provided for will be the construction of a new wing for the Egyptian Section.

Although there has been no official expression on the part of the Board of Managers concerning these needs, I believe that I am justified in saying that the members of the Board individually and collectively recognize these facts and share the feeling that a new wing for the Egyptian Section bearing the name of the late President and constituting a suitable and dignified memorial to him and his work is one of the most important and agreeable tasks of the future. It is equally a duty to prosecute with vigor and continuously while the opportunity lasts, the assembling of collections so that the Egyptian Halls and their contents will together constitute a monument not inferior to anything of its kind in this country and

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one that will be in all respects worthy of the name of Mr. Eckley B. Coxe, Junior and his work.

An expedition was sent to China in February in charge of Mr. C. W. Bishop, Assistant Curator of the Section of Oriental Art, for the purpose of proceeding to the ancient capital of Sian-fu, for archæological investigations. After his arrival in China several circumstances, including a revolution and floods, prevented Mr. Bishop from reaching his objective. In the meantime he reported that owing to the increased price of silver his estimates for expenses would have to be increased forty per cent. Owing to this unexpected increase and owing also to the general financial conditions created in this country by the war, it was decided in November to recall Mr. Bishop to this country and to withdraw the Chinese Expedition for the present from the field.

Letters have been received from time to time from Mr. Alexander Scott in India. Mr. Scott, as will be remembered, has been employed on special work for the Museum in assembling collections of the early art of India. The collections obtained, which consist of many examples of early sculpture and later metal work, are stored in Bombay. Mr. Scott is planning to come to America himself in the spring and to bring these collections with him.

Mr. Louis Shotridge continued throughout the year his work of collecting for the Museum in Southeastern Alaska. Mr. Van Valin was sent in June into the Arctic regions of Northern Alaska to make collections among the Eskimo there. He is spending the winter at or near Point Barrow. These two Alaskan expeditions have been provided for by the generosity of Mr. John Wanamaker, Vice President of the Board of Managers.

Dr. Stephen Langdon, Reader of Assyriology at Oxford University, who, having obtained a leave of absence from Oxford, was appointed Curator of the Babylonian Section of the University Museum for the year. He was given permission to return to Oxford in September. During the year Dr. Langdon catalogued and made accessible for scholars about 6,000 tablets in the collections obtained by the University's expeditions to Nippur some years ago. In addition to this he helped students and scholars from the University of Pennsylvania, Bryn Mawr College, Columbia University, the University of Chicago and the General Theological Seminary of New York to make investigations and studies on their own behalf. He also gave instruction to these various students and scholars in

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his own special field. In addition to these labors he prepared from tablets in the Museum three volumes of texts and translations which were published by the Museum. He also prepared several articles for the MUSEUM JOURNAL dealing with tablets of special interest in the Babylonian Section of the Museum.

The most important single acquisition made during the year is the large Chinese sculpture which now stands in Harrison Hall opposite the entrance and which bears upon the pedestal the name of Mr. James B. Ford, the donor. Mr. Ford generously gave all of the money to acquire this magnificent piece of sculpture.

Other gifts of objects have been received from Dr. H. C. Wood, Dr. Charles D. Hart, Col. Joseph U. Crawford, Samuel P. Hanson, J. Maxwell Bullock, Miss Lydia T. Morris, Miss Alice M. Freeman, Miss Florence Sibley, Mrs. J. William White, Mrs. Westray Ladd, Miss Helen M. Campbell, Mrs. Hampton L. Carson, Miss Frances A. Roberts, Miss Elizabeth Lowry.

The Library of the Museum has received from Mrs. Charles Brinton Coxe the set of Curtis' *North American Indian* which was the property of the late President, Mr. Eckley B. Coxe, Jr. The Library has also received from Mr. Charles P. Bowditch a reproduction of the MS dictionary of the Quiche Language of Guatemala.

Loans have been received from Mr. Hiram W. Hixon, Mr. John B. Stetson and Mrs. J. Kearsley Mitchell.

The purchases made during the year from the general Expedition and Collection Fund have been $81,051, distributed through all sections of the Museum. The Section of Oriental Art, in addition to Mr. Ford's gift of the fine Wei Dynasty statue, has acquired a very fine example of an ancient Chinese rug and sixty-six additional porcelains from the Morgan collection. The collection of Persian art was also increased by some textiles and potteries and bronzes.

The Section of Greek and Roman Art acquired the fine grave stele of the Fourth Century B. C., together with a number of supremely fine examples of painted Greek vases.

In the American Section acquisitions were made extending from Mexico to the Arctic and including a very important collection of Mexican jade and gold ornaments.

The collections in the Babylonian Section and the Section of General Ethnology have also been enlarged during the year by purchases, while the Library has continued to grow by a careful

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selection of the standard works which relate directly to the activities of the Museum.

During the year new members were elected as follows. Four Fellowship, nineteen Sustaining and one hundred and sixty-two Annual.

It can be said without reservation with regard to the acquisitions made during the year by gift and by purchase, that these are not surpassed in interest or importance by any former year in the Museum's history and are equaled by only one or two.

We have lost some of our workmen and some of our trained assistants. One of the curators, Mr. H. U. Hall, is in the army and five of the workmen and office assistants have gone into Government employ for higher pay. We will not attempt at this time to replace these people, some of whom have received special training for their posts. Their loss means that the work will be harder for those who remain and also that some of the work will not be done, but we intend to manage in such a way during the coming year that the work will be adequately taken care of and so that the collections shall not suffer.

These losses in the personnel which I have mentioned are a direct result of the war, but, everything considered, the Museum has fared very well in this respect.

In other respects also the interests of the Museum are likewise directly affected. At the same time that funds from private sources are necessarily more restricted, the cost of many of the materials needed in the Museum has risen greatly in some instances. In other instances these materials cannot be procured at all. The most serious example of this kind which we have to contend with is the increased cost of exhibition cases. This has been so marked that during the last year we have had no new cases at all, although these were much needed in the installation of the new collections.

A fourth condition which comes into the closest possible relation with our work is the great scarcity and increased cost of all good works of art of every kind from all parts of the world. The objects in which the Museum is interested afforded by the markets of the world since the war began have been very much less in number than in the years immediately preceding. During the last three and a half years the prices of all such objects have risen in a striking manner. The few things that have changed hands in the sales in Europe during this past summer have fetched higher prices than had

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ever been fetched before. This, of course, is exactly the condition that might have been anticipated as a result of the war, although it is exactly the reverse of what most Museums expected.

Whatever may be the difficulties, it is not the purpose of the University Museum to relax its efforts during these times, but rather to increase its exertions on behalf of the interests that are represented in its activities. There never has been a time when the value and usefulness of the Museum and its work have been more apparent than today. While the larger and necessary tasks for which the Government of the country is responsible and in which everybody shares, are being carried forward towards a successful conclusion, the Museum will continue to do its part on behalf of education and the public welfare. It will continue to provide, among other things, the best and most effective form of relaxation from the strain to which everyone will be subjected in the months and years that lie in the foreground of our experience.

G. B. GORDON,
Director.

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GIFTS AND LOANS
1917

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GIFTS

J. Maxwell Bullock
Native drum from Hayti

Miss Helen B. Campbell
Two decorated calabashes from Brazil

Hampton L. Carson
Painted tapa cloth from Samoa

Mrs. Hampton L. Carson
Blackfoot Indian skin dresser

Joseph Ury Crawford
Suit of Japanese armor

Miss Alice M. Freeman
Greek vase
Greek figurine

Samuel P. Hanson
Two hammocks from the West Coast of Africa

Charles D. Hart
Suit of Japanese armor
Carved dragon from China
Peking *Gazette*

Alfred Hendrickson
Stone axe from New Jersey

Mrs. Westray Ladd
Fifty-nine Indian baskets

Miss Elizabeth S. Lowry
A Soudanese beaded dress

Miss Lydia T. Morris
Eleven pieces of Russian enamel work
One piece of Roman glass

Miss Elizabeth C. Roberts
Feather robe from South America

Miss Florence Sibley
Egyptian amulets and scarabs

Mrs. J. William White
American pottery
Italian pottery
Mummified cat from Egypt

Horatio C. Wood
Pair of Japanese swords
Three ethnological specimens

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LOANS

Miss Beatrice Fox
Gold ornament from Chirique

Miss Emmeline Goodman
American Indian collection

Hiram W. Hixon
Mexican collection

Mrs. John Kearsley Mitchell
Greek vases

John B. Stetson
Mummified head
Decorated shirt of bark
Feather headdress
Native spear and other implements from Ecuador

GIFTS TO LIBRARY

Charles P. Bowditch
Photostat reproduction of Quiche-Spanish and Spanish-Quiche dictionary

Mrs. Charles Brinton Coxe
Set of Curtis' *North American Indian* in eleven volumes of text and eleven folios of plates

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REPORT OF
THE TREASURER

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REPORT OF THE TREASURER

FOR THE YEAR ENDING JUNE 30, 1917

RECEIPTS

Balance, June 30, 1916			$10,476 96
Annual Dues:			
Annual Members	$5,230 00		
Fellowship Members	2,700 00		
Sustaining Members	1,350 00		
		$9,280 00	
Gifts:			
Expedition and Collection Fund	$145,073 21		
China Expedition Fund	6,000 00		
Egyptian Expedition Fund	15,236 02		
General Purposes	60,015 00		
		226,324 23	
Sales:			
Publications	$872 19		
Cases	400 00		
Slides, Photos, Casts, Rentals and Refunds	171 03		
		1,443 22	
Income from Invested Funds:			
Pepper Hall Endowment Fund	$2,331 49		
General Fund	881 75		
Endowment Fund	749 80		
Louis A. Duhring Fund	10,263 84		
Sommerville Collection Fund	1,027 04		
Lucy Wharton Drexel Medal Fund	94 12		
Lucy Wharton Drexel Museum Cast Fund	929 63		
Francis C. Macauley Fund	232 41		
Carl Edelheim Excavation Fund	47 15		
		16,557 23	
Interest on Bank Balances		228 31	
			253,832 99
			$264,309 95

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EXPENDITURES

General Fund:			
Salaries	$40,642 16		
Supplies and expenses	14,267 32		
Lectures	1,458 40		
Printing publications	9,530 55		
Books	396 30		
Equipment	4,550 91		
		$70,845 64	
Expedition and Collection Fund		155,325 46	
Amazon Expedition Fund		1,298 41	
China Expedition Fund		2,166 89	
Egyptian Expedition Fund		16,000 00	
Guatemalan Expedition Fund		477 00	
Carl Edelheim Excavation Fund		180 04	
			$246,293 44
Cash Balances, June 30, 1917:			
Prize Essay Fund		$11 11	
Expedition and Collection Fund		100 00	
China Expedition Fund		3,833 11	
Guatemalan Expedition Fund		43 00	
Carl Edelheim Excavation Fund		51 47	
Lucy Wharton Drexel Medal Fund		806 87	
Lucy Wharton Drexel Museum Cast Fund		1,853 52	
Pepper Statue Fund		46 07	
Francis C. Macauley Fund		1,144 36	
General Fund		10,890 98	
		$18,780 49	
Egyptian Expedition Fund, Deficit		763 98	
			18,016 51
			$264,309 95

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GIFTS TO THE UNIVERSITY MUSEUM

FROM JULY 1, 1916, TO JUNE 30, 1917

Expedition and Collection Fund:		
Through the Treasurer of the University of Pennsylvania		$145,073 21
China Expedition Fund:		
Through the Treasurer of the University of Pennsylvania		6,000 00
Egyptian Expedition Fund:		
Eckley B. Coxe, Jr	$236 02	
Estate of Eckley B. Coxe, Jr	15,000 00	
		15,236 02
General Purposes:		
Through the Treasurer of the University of Pennsylvania	$11,500 00	
Eckley B. Coxe, Jr	8,750 00	
Estate of Eckley B. Coxe, Jr	26,250 00	
Anonymous, in memory of the late Eckley B. Coxe, Jr	1,000 00	
City of Philadelphia Appropriation	12,500 00	
Mrs. Joseph H. Bovaird	10 00	
Samuel A. Crozer	5 00	
		60,015 00
		$226,324 23

W. H. HUTT, JR.,
Treasurer.

We hereby certify that we have audited the accounts of the University Museum for the year ended 30th June, 1917, and found them to be correct, and that the foregoing report of the Treasurer is in agreement with the books of account.

LYBRAND, ROSS BROS. & MONTGOMERY,
Certified Public Accountants.

23d October, 1917.

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GIFTS TO THE UNIVERSITY MUSEUM THROUGH THE TREASURER OF THE UNIVERSITY OF PENNSYLVANIA

FROM JULY 1, 1916, TO JUNE 30, 1917

AMAZON EXPEDITION FUND:

Heye, George G		$5,000 00

UNIVERSITY MUSEUM EXPEDITION AND COLLECTION FUND:

Anonymous	$250 00
Allen, William F	100 00
Battles, Frank	100 00
Belfield, T. Broom	1,000 00
Benson, G. S., Jr	100 00
Blanchard, Miss Harriet	5,000 00
Bonnell, Henry H	2,000 00
Bower, William H	7,500 00
Burnham, George, Jr	1,000 00
Campbell, Milton	500 00
Castner, Samuel, Jr	500 00
Clark, E. W	5,000 00
Clark, Percy H	500 00
Collins, Henry H	500 00
Colton, S. W., Jr	7,500 00
Daniel, Charles A	500 00
Dannenbaum, Morris	100 00
Doran, Joseph I	250 00
Dreer, William F	250 00
Ford, James B	30,000 00
Fuguet, Howard	1,000 00
Garrett, Mrs. Walter	1,000 00
Gibson, Miss Mary K	5,000 00
Greene, Dr. William H	1,000 00
Gribbel, John	250 00
Gucker, Frank T	250 00
Halstead, David	250 00
Harrison, Charles C	10,000 00
Harrison, Charles C., Jr., & Co	750 00
Hatfield, Henry Reed	1,000 00
Henry, Mrs. Charles W	8,000 00
Hering, Walter E	500 00
Hunter, T. Comly	500 00
Jeanes, Isaac W	500 00
Jenkins, Charles F	250 00
Kerr, Samuel T	500 00
Kohn, Simon I	500 00

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Lewis, Henry	$250 00	
Lippincott, J. Bertram	125 00	
Lit, Samuel D. and Jacob D	500 00	
Ludington, Charles H	500 00	
McCahan, W. J	2,000 00	
McFadden, George H	1,000 00	
McNeely, George H	250 00	
Madeira, Louis C	100 00	
Madeira, Percy C	250 00	
Meirs, Richard Waln	250 00	
Mohr, James N	250 00	
Moore, Henry D	1,000 00	
Mulford, Spencer K	250 00	
Newbold, John S	500 00	
Peterson, Arthur	5,000 00	
Pierson, Walter	250 00	
Potts, William M	1,000 00	
Presser, Theodore	250 00	
Riley, Lewis A	250 00	
Roberts, Miss Frances A	1,000 00	
Schmidt, Edward A	500 00	
Snellenburg, Samuel	500 00	
Steigerwalt, William H	500 00	
Sternberger, Samuel	100 00	
Stewart, Ralph C	500 00	
Stewart, Dr. Thomas S	250 00	
Townsend, J. Barton	250 00	
Turner, Mrs. Charles P	1,000 00	
Walton, Estate of Charles S., deceased	250 00	
Wanamaker, John	4,450 00	
Windrim, John T	1,000 00	
Wood, Mrs. Alan, Jr	1,000 00	
Woodward, Mrs. George	4,000 00	
Wurts-Dundas, Ralph	250 00	
		$123,425 00

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MEMBERSHIP

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MEMBERSHIP RULES

There are four classes of membership in the Museum.

FELLOWS FOR LIFE, who contribute..... $1,000

FELLOWSHIP MEMBERS, who pay an annual contribution of..... 100

SUSTAINING MEMBERS, who pay an annual contribution of..... 25

ANNUAL MEMBERS, who pay an annual contribution of..... 10

All classes of members are entitled to the following privileges. Admission to the Museum at all reasonable times; an invitation to any regular reception given by the Board of Managers at the Museum; reserved seats at the lectures given for members in the Museum Auditorium; the Museum Journal; copies of all guides and handbooks published by the Museum and free use of the Library. In addition to the privileges to which all classes of members are entitled, Sustaining Members and Fellows receive, upon request, copies of all books published by the Museum.

FELLOW FOR LIFE

Coxe, Mrs. Eckley B.

FELLOWSHIP MEMBERS

Bodine, Samuel T.
Caldwell, James Emott
Carson, Hampton L.
Child, Charles S.
Clark, Edward Walter
Collins, Henry H.
Coxe, Mrs. Charles Brinton
Curtis, Cyrus H. K.
Doran, Joseph I.
Harrison, Charles Custis
Harrison, George L., Jr
Helme, William E.
Hering, Walter E.
Jeanes, Joseph Y.
Kohn, Simon I.
Madeira, Louis C.
Newbold, Clement B.
Norris, George W.
Paul, J. Rodman
Peterson, Arthur
Potts, William M.
Rea, Samuel
Schmidt, Mrs. Edward A.
Sheafer, Arthur W.
Sheafer, Henry
Stetson, John B., Jr.
Williams, Ellis D.

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Life Members

Battles, Frank
Bryant, Henry G.
Colket, C. Howard
Huntingdon, Archer M.
McNeely, Robert K.
Sharpe, Miss Sallie
Smyth, Carroll
Vaux, George, Jr.

Sustaining Members

Ashbrook, William S.
Avery, Samuel P.
Bancroft, William P.
Barnes, John Hampton
Barnes, W. H.
Benson, R. Dale
Bonner, James B.
Cadwalader, John
Cadwalader, Mrs. John
Cadwalader, Miss Sophia
Donner, William H.
Elkins, George W., Jr.
Free Library of Philadelphia
Fritsche, Mrs. John
Gatchel, H. A.
Gates, Thomas S.
Gibson, Miss Mary K.
Harris, Mrs. Mary Powers
Harrison, Charles C., Jr.
Harrison, Harry W.
Hatfield, Henry Reed
Horner, Samuel, Jr.
Huston, Charles L.
Ingersoll, Charles Edward
Jones, J. Levering
Justice, George L.
Ketterlinus, J. L.
Laughlin, Henry A.
Lavino, Edward J.
Lemoine, Louis R.
Lewis, Theodore J.
Lloyd, Horatio G.
McFadden, George
McIlhenny, Francis S.
McKeehan, Charles L.
Macfarlane, C. W.
Mastbaum, Jules E.
Metcalf, Mrs. Orlando
Mitchell, J. Kearsley
Montgomery, W. W., Jr.
Morgan, John B.
Patterson, Frank T.
Phillips, George Brinton
Poth, H. A.
Rawle, Mrs. William Brooke
Roberts, Owen J.
Robinette, Edward B.
Rosengarten, George D.
Rosengarten, Joseph G.
Rowland, Mrs. Edward K.
Sayce, A. H.
Scull, E. Marshall
Sewall, Arthur W.
Sinkler, Miss Caroline S.
Smith, Mrs. C. Morton
Stewardson, Emlyn L.
Sullivan, John J.
Wanamaker, John
Wisecarver, T. J.
Wood, Clement B.
Wood, Edward F. R.
Wood, Mrs. Grahame
Ziegler, S. Lewis

Annual Members

Abbott, Miss Gertrude
Adger, Miss Willian
Adler, Cyrus
Alexander, Mrs. Robert
Apel, Mrs. Elizabeth
Arnett, William W.
Asbury, Charles W.
Atlee, E. I.

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Austin, Richard L.
Ayer, F. W.
Bailey, George, Jr.
Bailey, Joseph T.
Baird, Charles O.
Baird, John E.
Balch, Edwin S.
Banks, George W.
Barclay, A. Charles
Barnes, Miss Anne Hampton
Barnhurst, Washington
Barrie, George
Battles, Mrs. Frank
Battles, Mrs. H. H.
Bayard, James W.
Beeber, Dimner
Beekman, Gerard
Belfield, T. Broom
Belfield, Mrs. T. Broom
Belfield, T. Dun
Bell, Miss Emily
Bell, Miss Laura
Bement, Clarence S.
Bement, William P.
Benson, Gustavus S., Jr.
Bickley, Mrs. Frederick K.
Biddle, Mrs. Arthur
Biddle, Miss Christine W.
Biddle, Clement
Biddle, Craig
Biddle, Miss Emily W.
Biddle, W. Lyman
Bigelow, W. S.
Binney, Miss Julia H.
Bioren, John S.
Blair, Andrew A.
Blair, Mrs. Andrew A.
Blight, E. Spencer
Boggs, H. Alford
Borie, Charles L., Jr.
Bowditch, Charles P.
Bradway, William
Brazier, Miss E. Josephine
Brazier, Mrs. Joseph H.
Brengle, Henry G.
Brinton, Joseph Hill
Brinton, Mrs. Joseph P.
Brinton, Richard B.
Brinton, Mrs. Sarah M.
Brock, Joseph Spencer
Bromley, John H.
Bromley, Joseph H.
Brooke, Robert E.
Brown, Charles L.
Brown, James Crosby
Brown, John A., Jr.
Brown, Miss Martha M.
Brown, Reynolds D.
Brown, William Findlay
Buckley, Miss Mary Swift
Bucknell, Mrs. William
Burnham, George, Jr.
Burnham, Miss Mary A.
Burnham, William
Burr, Charles W.
Burr, Edward H.
Burt, Mrs. Arthur A.
Busch, Henry E.
Cadwalader, John, Jr.
Cadwalader, Miss Mary Helen
Caldwell, Miss Florence F.
Campbell, John M.
Campbell, Mrs. Mason
Caner, Harrison K.
Carpenter, Harvey N.
Carr, John H.
Carruth, John G.
Carson, Miss Anne C.
Carter, John E.
Carter, John H. McQ.
Cassatt, Mrs. A. J.
Castner, Samuel, Jr.
Castner, Samuel J.
Chambers, Francis T.
Chandler, Percy M.
Chandler, T. P.
Chapman, S. Hudson
Chew, Miss Elizabeth
Clapp, Mrs. B. Frank
Clark, Mrs. C. Howard, Jr.
Clark, Clarence M.
Clark, Mrs. Edward Walter
Clark, Joseph S.
Clark, William H.

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Clarke, Charles H.
Clift, William M.
Clothier, Isaac H.
Coates, Edward H.
Coates, William M.
Cohen, Charles J.
Coleman, Miss Fanny B.
Coles, Mrs. Edward
Coles, Miss Mary
Colfelt, Mrs. R. McM.
Colket, G. Hamilton
Colket, Miss Mary W.
Colladay, Mrs. Theodore F.
Collins, Alfred M.
Colton, S. W., Jr.
Comegys, Miss Clara
Converse, Mrs. John W.
Cooke, Mrs. Morris L.
Corlies, Mrs. S. Fisher
Cowan, Mrs. G. Lloyd, Jr.
Cowperthwait, Charles T.
Coxe, Henry B.
Coxe, Mrs. Henry B.
Cramp, Theodore W.
Cramp, Walter S.
Crane, Mrs. Theron I.
Crawford, Joseph Ury
Creswell, Charles T.
Cromwell, J. H. R.
Croxton, Mrs. John G.
Cunningham, Francis A.
Currie, Mrs. C. George
Dager, Howard J.
Daland, Judson
Dana, Mrs. Charles E.
Davis, Mrs. Henry C.
Day, Frank Miles
Deaver, John B.
Deiser, George F.
de Schweinitz, George E.
de Turck, Miss Ethel E.
Devlin, Thomas
Dickey, John, Jr.
Dinkey, Alva C.
Disston, Albert H.
Disston, Hamilton
Disston, Jacob S.
Donaldson, Henry H.
Dreifus, Jacob S.
Drexel, A. J.
Drexel, Mrs. George W. Childs
Drexel, John R.
Dunn, C. B.
Dunn, Robert M.
du Pont, Mrs. Henry B.
Earnshaw, George E., Jr.
Eckert, Mrs. Samuel
Edmunds, Henry R.
Ellis, William S.
English, Mrs. Chancellor C.
Evans, Allen
Evans, S. Wilson
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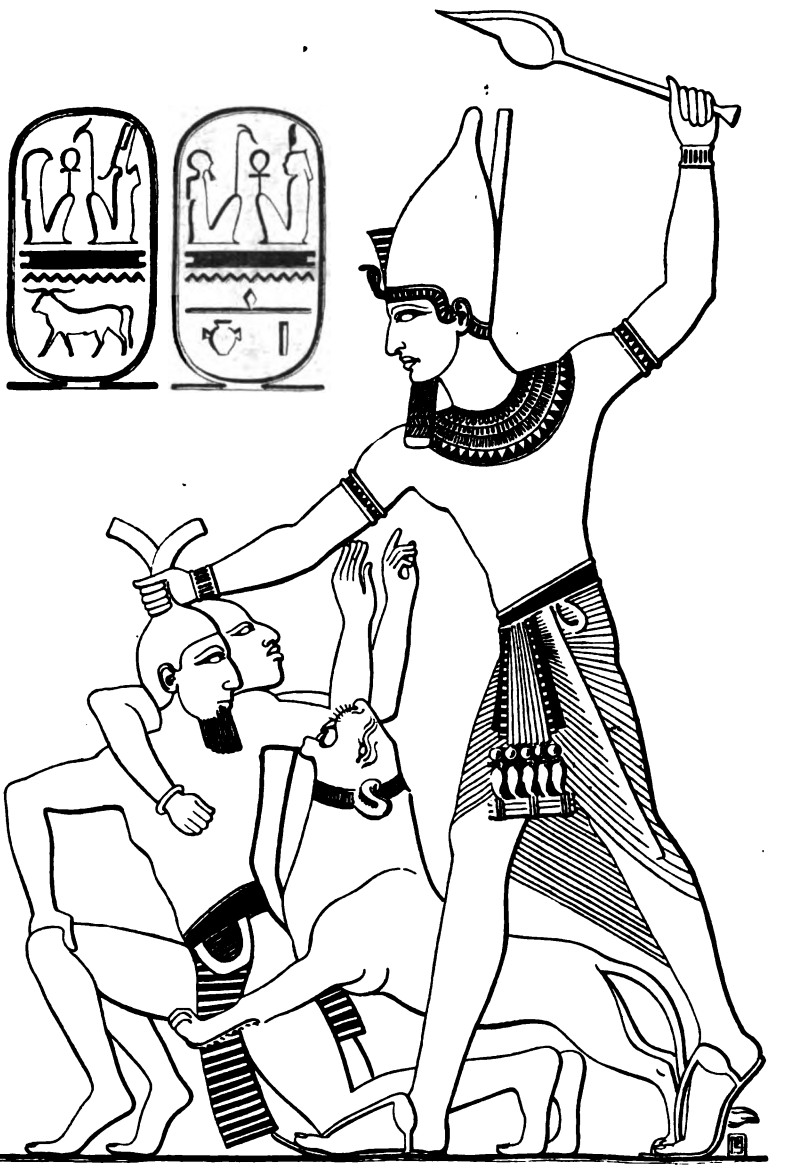

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